Page 1 of 559

	1 1180 1 0)
Incident ID	nRM2030230289
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following is	tems must be included in the closure report.
✓ A scaled site and sampling diagram as described in 19.15.29.1	11 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
✓ Laboratory analyses of final sampling (Note: appropriate ODC	C District office must be notified 2 days prior to final sampling)
✓ Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and replaced to the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regular restore, reclaim, and re-vegetate the impacted surface area to the conformation of the Conf	ations. The responsible party acknowledges they must substantially anditions that existed prior to the release or their final land use in DCD when reclamation and re-vegetation are complete. Title: Environmental Representative Date: 3/22/21
email: rrunnels@mewbourne.com	Telephone: (575)393-5905
OCD Only	
Received by:	Date:
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.
Closure Approved by:	Date:
Printed Name:	Title:

Remediation Summary & Soil Closure Request

Mewbourne Oil Company Carlsbad Water Management System

Eddy County, New Mexico
Unit Letters F & K, Section 35, Township 23 South, Range 27 East
Latitude 32.261438 North, Longitude 104.163478 West
NMOCD Reference No. nRM2030230289

Prepared By:

Etech Environmental & Safety Solutions, Inc.

3100 Plains Highway Lovington, New Mexico 88260

Joel W. Lowry

Environmental & Safety Solutions, Inc.

Midland • San Antonio • Lubbock • Lovington • Lafayette

Ben J. Arguijo

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1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Mewbourne Oil Company, has prepared this *Remediation Summary & Soil Closure Request* for the release site known as the Carlsbad Water Management System (henceforth, "Site"). Details of the release are summarized below:

	Location of Release Source												
Latitude:	32.2	61438	Longitude:		-104.163478								
		Provide	d GPS are in WGS84 for	nat.									
		Management System	Site Type:		Pipeline								
Date Release Discover	ed:	10/19/2020	API # (if appli	cable):	N/A								
Unit Letter Se	ction	Township											
F & K	35	23S	27E	Eddy									
Surface Owner: State X Federal Tribal Private (Name Nature and Volume of Release													
Crude Oil	Volun	ne Released (bbls)		Volume Reco	overed (bbls)								
X Produced Water	Volum	ne Released (bbls)	150	Volume Reco	overed (bbls) 20								
		oncentration of dissol ed water > 10,000 mg		X Yes	No N/A								
Condensate	Volum	ne Released (bbls)		Volume Reco	e Recovered (bbls)								
Natural Gas	Volum	ne Released (Mcf)		Volume Reco	overed (Mcf)								
Other (describe)	Volum	e/Weight Released		Volume/Weig	ght Recovered								
Cause of Release: 12" Poly pup joint spl	it on pip	eline riser.											
		In	nitial Response										
X The source of the	elease ha	as been stopped.											
X The impacted area	has been	secured to protect hum	an health and the er	vironment.									
				•	other containment devices								
X All free liquids and	recovera	able materials have been	n removed and man	aged appropriately	/.								

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

2.0 INITIAL SITE ASSESSMENT

On November 9, 2020, Etech conducted an initial site assessment. During the initial site assessment, a series of test trenches were advanced within the release margins in an effort to determine the vertical extent of impacted soil. In addition, handaugered soil bores were advanced at the inferred edges of the affected area in an effort to determine the horizontal extent of impacted soil. During the advancement of the test trenches and hand-augered soil bores, soil samples were collected and field-screened for the presence of Volatile Organic Compounds utilizing a Photoionization Detector (PID) and/or concentrations of chloride utilizing a Hach Quantab ® chloride test kit. Based on field observations and field test data, 16 delineation soil samples (TT1 @ Surface, TT1 @ 11', TT2 @ Surface, TT2 @ 6', TT3 @ Surface, TT3 @ 6', TT4 @ Surface, TT4 @ 7', TT5 @ Surface, TT5 @ 3', SH1 @ 2.5', NH1 @ 2.5', EH1 @ 2.5', EH2 @ 2.5', WH1 @ 2.5', and WH2 @ 2.5') were submitted to a certified commercial laboratory for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX); total petroleum hydrocarbons (TPH); and chloride.

Locations of the test trenches and hand-augered soil bores are depicted in Figure 3A, "Site & Sample Location Map - Delineation". Field data is provided in Appendix A. Soil chemistry table is summarized in Table 1. Laboratory analytical reports are provided in Appendix B. General photographs of the Site are provided in Appendix C.

3.0 SITE CHARACTERIZATION & CLOSURE CRITERIA

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided in Appendix D.

What is the shallowest depth to groundwater beneath the area affected by the release?	95	feet
Did the release impact groundwater or surface water?	Yes	X No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	Yes	X No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark?	Yes	X No
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	Yes	X No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	Yes	X No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	Yes	X No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	Yes	X No
Are the lateral extents of the release within 300 feet of a wetland?	Yes	X No
Are the lateral extents of the release overlying a subsurface mine?	Yes	X No
Are the lateral extents of the release overlying an unstable area such as karst geology?	Yes	X No
Are the lateral extents of the release within a 100-year floodplain?	Yes	X No
Did the release impact areas not on an exploration, development, production or storage site?	X Yes	No

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) and Playa Lakes Joint Venture (PLJV) shapefiles; topographic maps; NMOSE, USGS, and United States Fish & Wildlife Service (USFWS) databases; and aerial imagery. The results are depicted in Figures 1, 2, 4, and 5.

Although portions of the spill affected a low-lying area to the southeast of the point of release, GIS map data provided on the websites of the USFWS's National Wetlands Inventory and the PLJV project does not identify the depression as either a wetland or a probable playa. In addition, elevation data indicates the change in elevation across the depression is less than 4 feet, ranging from 3,143 feet in the approximate center of the depression (i.e., the lowest-lying point) to 3,146 feet along the periphery. An elevation profile is provided in Appendix E.

Review of GIS map data acquired from the BLM at the time of the release indicated the Site is in an area of "medium" potential for encountering karst and naturally occurring sinkholes. An area of "high" potential was identified approximately 1 mile to the east-southeast of the site. Although the Site is located in an area of medium potential for karst occurrence, which is considered by the NMOCD to be stable, additional investigation into the potential for groundwater impact was warranted.

A search of groundwater quality data in the USGS's National Water Information System indicated the historic concentration of chloride in the area is 340 mg/L. On November 19, 2020, a groundwater sample was collected from a public water supply system well in the vicinity in an effort to confirm the background concentration of chloride at/near the Site. The groundwater sample was submitted to a certified commercial laboratory for analysis of total dissolved solids (TDS) and chloride. Laboratory analytical results indicated the TDS concentration was 2,050 mg/L. The chloride concentration was 356 mg/L, which exceeds the New Mexico Water Quality Control Commission (NMWQCC) standard of 250.0 mg/L specified in Section 20.6.2.3103 B.(1) of the New Mexico Administrative Code (NMAC).

The locations of the USGS and public water supply wells are depicted in Figure 6. Groundwater quality data is provided in Appendix F. Chloride migration modeling data is provided in Appendix G.

Based on the information summarized above, Mewbourne Oil Company requested Closure Criteria and Reclamation Standards for the Site as listed in the table below. The request was ultimately approved by the NMOCD and the BLM.

Probable Depth to Groundwater	Constituent	Method	Closure Criteria	Reclamation Standard*
	Chloride	EPA 300.0 or SM4500 Cl B	10,000 mg/kg	600 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2,500 mg/kg	100 mg/kg
95 feet	DRO + GRO	EPA SW-846 Method 8015M	1,000 mg/kg	-
	BTEX	EPA SW-846 Methods 8021b or 8260b	50 mg/kg	50 mg/kg
	Benzene	EPA SW-846 Methods 8021b or 8260b	10 mg/kg	10 mg/kg

^{*} The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas.

4.0 PROPOSED REMEDIATION PLAN

Based on laboratory analytical results, site characteristics, and field observations made during the initial site assessment, Mewbourne Oil Company proposed the following remediation activities designed to advance the Site toward an approved closure:

- Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Closure Criteria as follows:
 - Approximately 3 feet bgs in the area characterized by sample point TT-5.
 - \circ Approximately 4 feet bgs in the areas characterized by sample points TT-1 through TT-4.
- Advance the sidewalls of the excavated area until laboratory analytical results indicate impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard has been removed.
- Temporarily stockpile excavated material on-site, pending transfer to an NMOCD-approved facility for disposal.
- Upon excavating impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard, collect the requisite excavation confirmation soil samples.
- · Upon receiving laboratory analytical results from excavation confirmation soil samples, backfill the excavated area with

locally sourced, non-impacted, "like" material, then compact and contour the area to match the surrounding topography.

• Upon completion of remediation activities, prepare a *Remediation Summary & Soil Closure Request* detailing field activities and laboratory analytical results from confirmation soil samples.

5.0 REGULATORY APPROVALS & STIPULATIONS

On November 10, 2020, based on the size and nature of the release, the anticipated prompt excavation of impacted soil, and the depth to groundwater, an *Alternative Sampling Plan* was submitted to the NMOCD proposing an alternative sampling plan to include the collection of composite soil samples every 50 linear feet from the excavation sidewalls and every 400 square feet from the base of the excavated area. A variance to collect TPH and BTEX confirmation samples at 100-foot horizontal increments was also requested. The *Alternative Sampling Plan* was subsequently approved by the NMOCD.

On December 14, 2020, a *Site Assessment Report and Proposed Remediation Workplan* was submitted to the NMOCD proposing the aformentioned remediation activities designed to advance the Site toward regulatory closure. The *Site Assessment Report and Proposed Remediation Workplan* was ultimately approved by the NMOCD and the BLM, with the condition that a layer of compacted caliche be installed from the base of the excavated area to approximately one (1) foot bgs to inhibit the vertical migration of chloride contamination.

Please reference the *Site Assessment Report and Proposed Remediation Workplan* (henceforth, "Workplan") for additional details regarding site characterization and proposed remediation activities. NMOCD and BLM correspondence is provided in Appendix H.

6.0 REMEDIATION ACTIVITIES SUMMARY

On November 10, 2020, Etech commenced remediation activities at the Site. In accordance with NMOCD regulatory guidelines and the approved Workplan, impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standards was excavated and stockpiled on-site, pending transfer to an NMOCD-approved surface waste facility for disposal. The floor and sidewalls of the excavation were advanced until field observations and test results suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

Etech also collected seven (7) excavation confirmation soil samples (EW1, EW2, EW3, EW5, EW6, EW7, and EW9). The soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples, with the exception of sample EW2, which exhibited a chloride concentration over the NMOCD Reclamation Standard of 600 mg/kg.

On November 11, 2020, Etech collected two (2) excavation confirmation soil samples (EW4 E and EW8 B). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On November 12, 2020, Etech collected one (1) excavation confirmation soil sample (SW1 C). The soil sample was submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

On November 16, 2020, Etech collected 10 excavation confirmation soil samples (SW 2, WW 1B, WW 2B, WW 3, FL 5 4', FL 8 4', FL 9 4', FL 10 3', FL 17 4', and FL 20 4'). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On November 17, 2020, Etech collected six (6) excavation confirmation soil samples (WW 4B, WW 5B, FL 22 4', FL 24 4', FL 27 4', and FL 30 4'). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory

analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On November 23, 2020, Etech collected one (1) excavation confirmation soil sample (EW 10). The soil sample was submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

On November 25, 2020, Etech collected nine (9) excavation confirmation soil samples (FL 55 4', FL 56 4', FL 57 4', FL 65 4', FL 66 4', FL 71 4', FL 75 4', FL 82 4', and FL 84 4'). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On November 30, 2020, based on laboratory analytical results, the excavation was further advanced in the area characterized by soil sample EW2. Etech also collected three (3) excavation confirmation soil samples (EW 2B, EW 11, and WW 7). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 1, 2020, Etech collected two (2) excavation confirmation soil samples (EW 12 and WW 8). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 2, 2020, Etech collected two (2) excavation confirmation soil samples (EW 13 and WW 9). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 3, 2020, Etech collected seven (7) excavation confirmation soil samples (EW 14, EW 15, EW 16, and WW 10 through WW 13). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 4, 2020, Etech collected four (4) excavation confirmation soil samples (EW 17, EW 18, WW 14, and WW 15). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 7, 2020, Etech collected six (6) excavation confirmation soil samples (NW 1, SW 3, WW 6C, FL 118 @ 4', FL 128 @ 4', and FL 129 @ 4'). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 8, 2020, Etech collected two (2) excavation confirmation soil samples (NW 2 and SW 4). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 9, 2020, Etech collected eight (8) excavation confirmation soil samples (EW 19, NW 3, NW 4, NW 5, SW 5, SW 6, SW 7, and WW 16). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 10, 2020, Etech collected seven (7) excavation confirmation soil samples (NW 6, NW 7, NW 8, SW 7, SW 8, SW 9, and FL 131 @ 4'). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 15, 2020, Etech collected six (6) excavation confirmation soil samples (EW 20, EW 21, EW 22, SW 10, WW 17, and WW 18). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 16, 2020, based on field observations and field test results, the excavation was further advanced in the area characterized by soil sample WW18. Etech also collected two (2) excavation confirmation soil samples (WW 18B and WW 19B). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 28, 2020, Etech collected five (5) excavation confirmation soil samples (EW 23, EW 24, WW 20, WW 21, and WW 22). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On December 30, 2020, Etech collected five (5) excavation confirmation soil samples (EW 25, NW 10, SW 11, FL 155 @ 4', and FL 156 @ 4'). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On January 6, 2021, Etech collected 158 excavation confirmation soil samples (EW 26, NW 11 through NW 14, SW 12, SW 13, FL 2 @ 4', FL 13 @ 4', FL 15 @ 4', FL 18 @ 4', FL 23 @ 4', FL 29 @ 4', FL 34 @ 4', FL 35 @ 4', FL 39 @ 4' through FL 46 @ 4', FL 49 @ 4' through FL 53 @ 4', FL 60 @ 4', FL 61 @ 4', FL 63 @ 4', FL 64 @ 4', FL 68 @ 4' through FL 70 @ 4', FL 74 @ 4', FL 76 @ 4' through FL 78 @ 4', FL 81 @ 4', FL 83 @ 4', FL 85 @ 4' through FL 117 @ 4', FL 119 @ 4' through FL 127 @ 4', FL 130 @ 4', FL 132 @ 4' through FL 154 @ 4', FL 157 @ 4' through FL 207 @ 4'). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples, with the exceptions of samples FL 164 @ 3' and FL 176 @ 3', which exhibited chloride concentrations over the NMOCD Reclamation Standard of 600 mg/kg.

On January 7, 2021, based on field observations and field test results, the excavation was further advanced in the areas characterized by soil samples FL 98, FL 99, FL 102, and FL 192. Etech also collected 21 excavation confirmation soil samples (FL 98 @ 5', FL 99 @ 5', FL 102 @ 5', FL 192 @ 5', and FL 208 @ 4' through FL 224 @ 4'). The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On January 18, 2021, based on laboratory analytical results, the excavation was further advanced in the areas characterized by soil samples FL 164 @ 3' and FL 176 @ 3'. Etech also collected three (3) excavation confirmation soil samples (FL 99 @ 5', FL 164 @ 4', and FL 176 @ 4'). The soil samples were submitted to the laboratory for analysis of chloride. Laboratory analytical results indicated chloride concentrations were below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

On January 19, 2021, Etech collected 34 excavation confirmation soil samples (NW 9, SW 12, WW 23, FL 1 @ 4', FL 3 @ 4', FL 4 @ 4', FL 6 @ 4', FL 7 @ 4', FL 11 @ 4', FL 12 @ 4', FL 14 @ 4', FL 16 @ 4', FL 19 @ 4', FL 21 @ 4', FL 25 @ 4', FL 26 @ 4', FL 28 @ 4', FL 31 @ 4' through FL 33 @ 4', FL 36 @ 4' through FL 38 @ 4', FL 47 @ 4', FL 48 @ 4', FL 54 @ 4', FL 58 @ 4', FL 59, FL 62, FL 67, FL 72, FL 73, FL 79, and FL 80). The soil samples were submitted to the laboratory for analysis of

BTEX, TPH, and/or chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples.

The final dimensions of the eastern portion of the excavated area were approximately 500 feet in length, 23 to 140 feet in width, and three (3) to four (4) feet in depth. The final dimensions of the western portion of the excavated area were approximately 1,070 feet in length, 20 to 221 feet in width, and three (3) to five (5) feet in depth. During the course of remediation activities, approximately 21,370 cubic yards of impacted soil were transported to an NMOCD-approved surface waste facility for disposal.

Soil sample locations and the footprint of the excavated area are depicted in Figure 3B, "Site & Sample Location Map - Excavation". Soil chemistry data is summarized in Table 1. Field notes and soil profile logs are provided in Appendix A. Laboratory analytical reports are provided in Appendix B. General photographs of the Site are provided in Appendix C.

7.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted material. The affected areas were contoured and compacted to achieve erosion control, stability, and preservation of surface water flow to the extent practicable. Affected areas not on lease roads will be reseeded with an agency-approved seed mixture free of noxious weeds during the first favorable growing season following closure of the Site.

8.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with an approved Workplan and subsequent correspondence with representatives of the NMOCD and the BLM. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH, and chloride are below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard. In accordance with the BLM, excavated areas were backfilled to approximately one (1) foot bgs with compacted caliche. This engineered control is designed to inhibit vertical migration of chloride contaminantion remaining in-situ.

Based on laboratory analytical results and field activities conducted to date, Etech recommends Mewbourne Oil Company provide copies of this *Remediation Summary & Soil Closure Request* to the appropriate agencies and request closure be granted to the Site.

9.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this *Remediation Summary & Soil Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Mewbourne Oil Company. Use of the information contained in this report is prohibited without the consent of Etech and/or Mewbourne Oil Company.

10.0 DISTRIBUTION

Mewbourne Oil Company 4801 Business Park Blvd. Hobbs, NM 88240

New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, District 2 811 S. First Street Artesia, NM 88210

United States Department of the Interior

Bureau of Land Management

620 E. Greene Street Carlsbad, NM 88220

(Electronic Submission)

Figure 1 Topographic Map

Released to Imaging: 8/23/2021 11:37:48 AM

Figure 2 Aerial Proximity Map

Figure 3A Site & Sample Location Map - Delineation

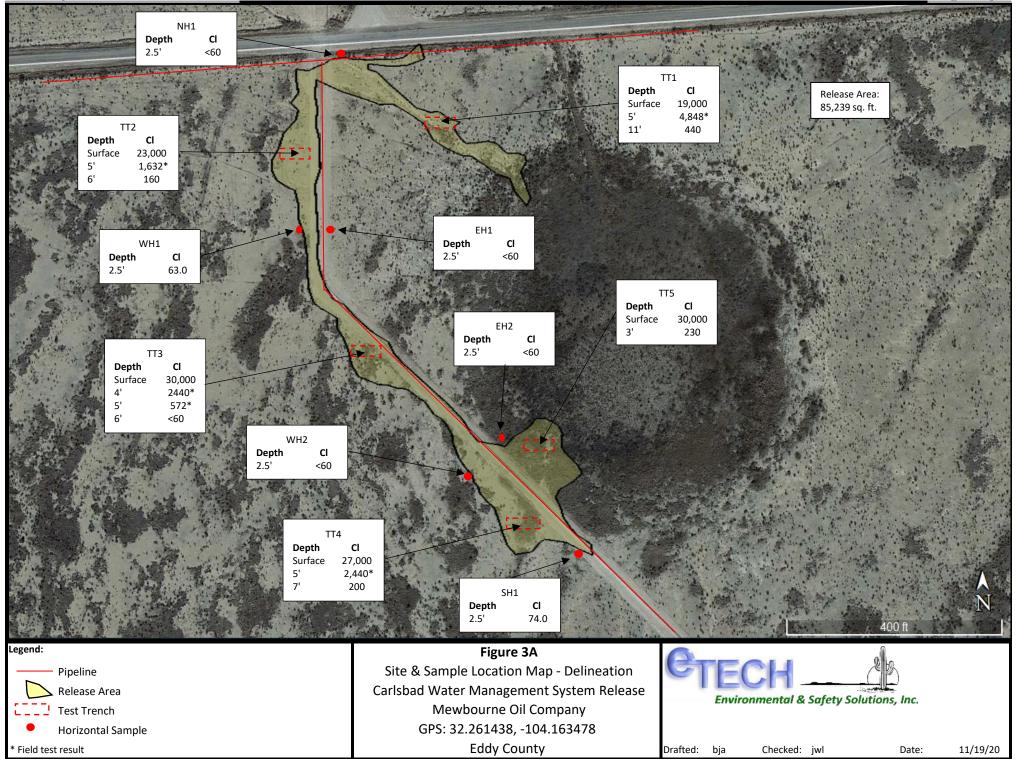


Figure 3B Site & Sample Location Map - Excavation

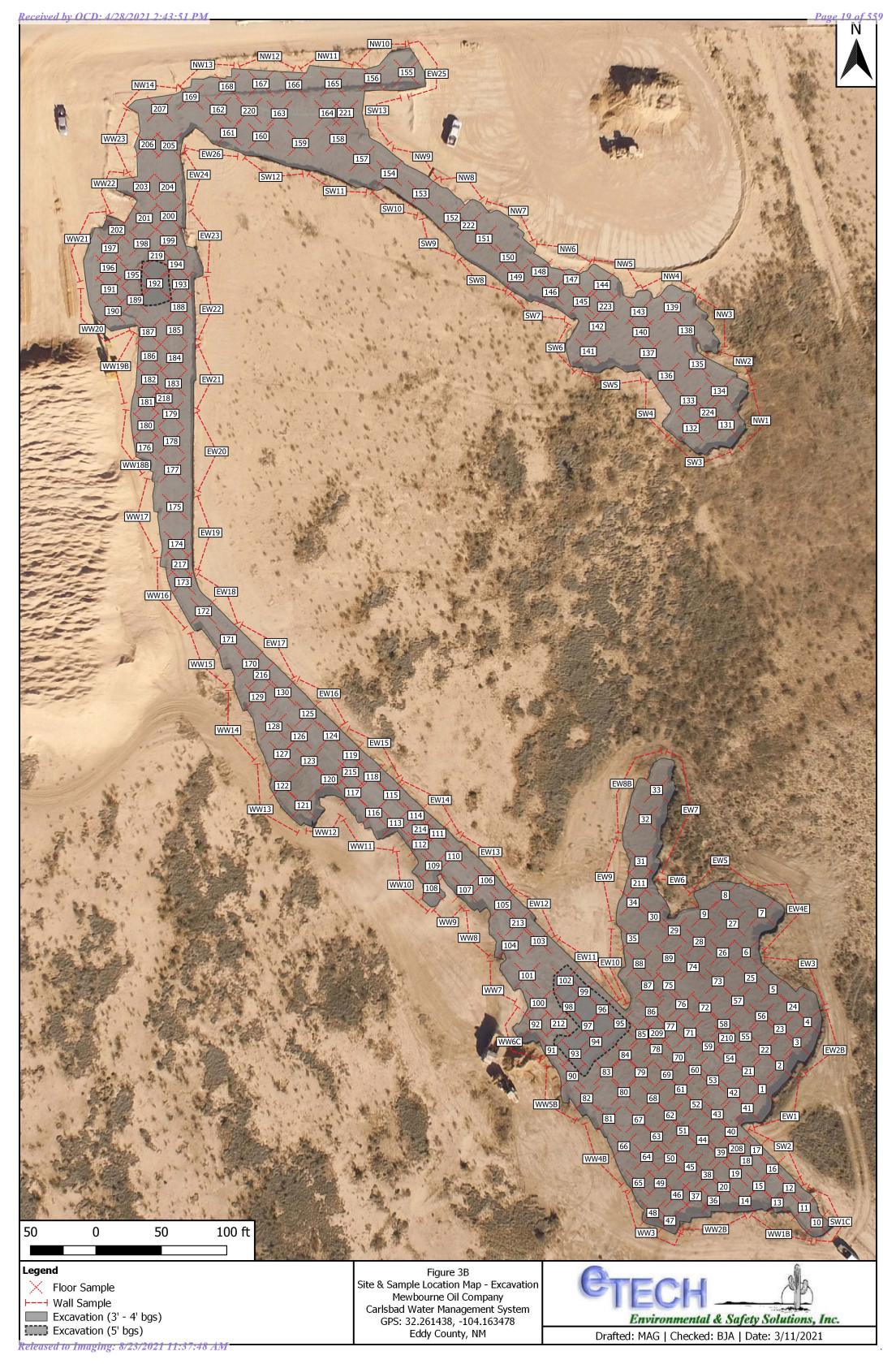


Table 1 Concentrations of BTEX, TPH & Chloride in Soil

CONCENTRATIONS OF BTEX, TPH & CHLORIDE IN SOIL

Mewbourne Oil Company

Carlsbad Water Management System

NMOCD Ref. #: nRM2030230289

NMO	NMOCD Closure Criteria					1KW12U3U2	250207	1.000	l	2.500	10.000
	Reclamation			10	50	-	-	1,000	-	2,500	10,000
NWIOCD	Reciaination	Standard	l	10	50	-	-	-	-	100	600
				SW 846	8021B		SW 846 8015M			1	4500 Cl
Sample ID	Date	Depth	Soil Status	Benzene	BTEX	GRO	DRO	DRO	ORO	ТРН	Chloride
			Status	(mg/kg)	(mg/kg)	C ₆ -C ₁₀ (mg/kg)	C ₁₀ -C ₂₈ (mg/kg)	C ₆ -C ₂₈	C ₂₈ -C ₃₆ (mg/kg)	C ₆ -C ₃₆ (mg/kg)	(mg/kg)
TTT1 0 0 0 0	1.1.10.12.02.0	01	_) IID	M			(mg/kg)			10.000
		0'	Excavated	ND	ND	ND	660	660	630	1,290	19,000
TT1 @ 11'	11/9/2020	11'	In-Situ	ND	ND	ND	ND	ND	ND	ND	440
TT2 @ Surface		0'	Excavated	ND	ND	ND	16.0	16.0	ND	16.0	23,000
TT2 @ 6'	11/9/2020	6'	In-Situ	ND	ND	ND	ND	ND	ND	ND	160
TT3 @ Surface	11/9/2020	0'	Excavated	ND	ND	ND	780	780	440	1,220	30,000
TT3 @ 6'	11/9/2020	6'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
TT4 @ Surface	11/9/2020	0'	Excavated	ND	ND	6.80	34.0	40.8	ND	40.8	27,000
TT4 @ 7'	11/9/2020	7'	In-Situ	ND	ND	ND	ND	ND	ND	ND	200
TT5 @ Surface	11/9/2020	0'	Excavated	ND	ND	ND	9.70	9.70	ND	9.70	30,000
TT5 @ 3'	11/9/2020	3'	Excavated	ND	ND	ND	ND	ND	ND	ND	230
WH1 @ 2.5'	11/9/2020	2.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	63.0
WH2 @ 2.5'	11/9/2020	2.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SH1 @ 2.5'	11/9/2020	2.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	74.0
NH1 @ 2.5'	11/9/2020	2.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EH1 @ 2.5'	11/9/2020	2.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EH2 @ 2.5'	11/9/2020	2.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 1	11/10/2020	2.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 2	11/10/2020	2.5'	Excavated	ND	ND	ND	ND	ND	ND	ND	1,600
EW 2B	11/30/2020	2.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 3	11/10/2020	2.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	310
EW 4E	11/11/2020	2.5'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 5	11/10/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	71.0
EW 6	11/10/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 7	11/10/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 8B	11/11/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	180
EW 9	11/10/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	84.0
EW 10	11/23/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	99.0
EW 11	11/30/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 12	12/1/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 13	12/2/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 14	12/3/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	190
EW 15	12/3/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 16	12/3/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 17	12/4/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 18	12/4/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 19	12/9/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 20	12/15/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 21	12/15/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 22	12/15/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 23	12/28/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	90.0
EW 24	12/28/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	76.0
NOTES:						•	-	-	-	-	-

^{- =} Sample not analyzed for that constituent.

CONCENTRATIONS OF BTEX, TPH & CHLORIDE IN SOIL

Mewbourne Oil Company

Carlsbad Water Management System

NMOCD Ref. #: nRM2030230289

NMC	NMOCD Closure Criteria				50	1KW12USU2	230207	1.000	l	2 500	10,000
	O Reclamation			10		-	-	1,000	-	2,500 100	10,000 600
NMOCI	Rectamation	Standard			50	SW 846 8015M Ext.					
			a	SW 846 8021B		GRO +				4500 Cl	
Sample ID	Date	Depth	Soil Status	Benzene	BTEX	GRO	DRO	DRO	ORO	ТРН	Chloride
			Status	(mg/kg)	(mg/kg)	C ₆ -C ₁₀ (mg/kg)	C ₁₀ -C ₂₈ (mg/kg)	C_6-C_{28}	C ₂₈ -C ₃₆ (mg/kg)	C ₆ -C ₃₆ (mg/kg)	(mg/kg)
EWIOS	12/20/2020	21	T G'	NID	NID			(mg/kg)			MD
EW 25	12/30/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
EW 26	1/6/2021	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	71.0
NW 1	12/7/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW 2	12/8/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW 3	12/9/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW 4	12/9/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW 5	12/9/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	91.0
NW 6	12/10/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	61.0
NW 7	12/10/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	70.0
NW 8	12/10/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	70.0
NW 9	1/19/2021	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	91.0
NW 10	12/30/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW 11	1/6/2021	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW 12	1/6/2021	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
NW 13	1/6/2021	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	68.0
NW 14	1/6/2021	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	65.0
SW 1 C	11/12/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW 2	11/16/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW 3	12/7/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW 4	12/8/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW 5	12/9/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW 6	12/9/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW 7	12/9/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	72.0
SW 7	12/10/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW 8	12/10/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW 9	12/10/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW 10	12/15/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
SW 11	12/30/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	110
SW 12	1/6/2021	2'	In-Situ	-	-	-	-	-	-	-	ND
SW 12	1/19/2021	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
SW 13	1/6/2021	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW 1B	11/16/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW 2B	11/16/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	76.0
WW 3	11/16/2020	2'	In-Situ	ND	ND	ND	11.0	11.0	ND	11.0	ND
WW 4B	11/17/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW 5B	11/17/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	67.0
WW 6C	12/7/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW 7	11/30/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW 8	12/1/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW 9	12/2/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	80.0
WW 10	12/3/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	65.0
NOTES:									-		-

^{- =} Sample not analyzed for that constituent.

CONCENTRATIONS OF BTEX, TPH & CHLORIDE IN SOIL

Mewbourne Oil Company

Carlsbad Water Management System

NMOCD Ref. #: nRM2030230289

NMO	CD Closure C	witowio			D Ref. #: 1		230289 	1.000		2.500	10.000
	Reclamation			10	50	-	-	1,000	-	2,500	10,000
NWOCD	Reclamation	Standard		10 SW 846	50	-	- CM	- 7 0 4 6 0 0 1 EM 1	- E-st	100	600 4500 Cl
			G 11	5 W 640	0 8021D	SW 846 8015M Ext.					4500 CI
Sample ID	Date	Depth	Soil Status	Benzene	BTEX	GRO C ₆ -C ₁₀	DRO C ₁₀ -C ₂₈	DRO	ORO C ₂₈ -C ₃₆	ТРН С ₆ -С ₃₆	Chloride
				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	C ₆ -C ₂₈	(mg/kg)	(mg/kg)	(mg/kg)
WW 11	12/3/2020	2'	In-Situ	ND	ND			(mg/kg)		, 0 0,	ND
WW 11 WW 12	12/3/2020	2'	In-Situ In-Situ	ND ND		ND ND	ND	ND	ND ND	ND ND	
WW 12 WW 13		2'	In-Situ In-Situ	ND ND	ND ND		ND ND	ND ND			81.0 320
WW 13	12/3/2020	2'				ND			ND	ND	
WW 14 WW 15	12/4/2020	2'	In-Situ In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW 15	12/4/2020 12/9/2020	2'	In-Situ In-Situ	ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND
WW 10	12/9/2020	2'	In-Situ In-Situ	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	120
WW 17	12/15/2020	2'	Excavated	ND	ND	ND	ND	ND	ND	ND	ND
WW 18B	12/15/2020	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
WW 18B	12/16/2020	2'	In-Situ In-Situ	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
WW 19B WW 20	12/16/2020	2'	In-Situ In-Situ	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
WW 20 WW 21	12/28/2020	2'	In-Situ In-Situ	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
WW 21 WW 22	12/28/2020	2'	In-Situ	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	110
WW 22 WW 23	1/19/2021	2'	In-Situ	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND
FL 1 @ 4'	1/19/2021	4'	In-Situ								650
FL 2 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,300
FL 2 @ 4 FL 3 @ 4'	1/19/2021	4'	In-Situ	-	-			-			1,000
FL 4 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	<u>-</u>	-	-	310
FL 5 4'	11/16/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	230
FL 6 @ 4'	1/19/2021	4'	In-Situ	ND			-	-		ND	210
FL 7 @ 4'	1/19/2021	4'	In-Situ	-	-	-	_		-		1,100
FL 8 4'	11/16/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FL 9 4'	11/16/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FL 10 3'	11/16/2020	3'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FL 11 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	390
FL 12 @ 4'	1/19/2021	4'	In-Situ								1,700
FL 13 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-		3,400
FL 13 @ 4'	1/19/2021	4'	In-Situ				_				1,100
FL 15 @ 4'	1/6/2021	4'	In-Situ	-		-	-	-	-		4,300
FL 16 @ 4'	1/19/2021	4'	In-Situ				_				1,000
FL 17 4'	11/16/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	160
FL 18 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	6,500
FL 19 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	_	_	1,400
FL 20 4'	11/16/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	140
FL 21 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	- ND	-		870
FL 22 4'	11/17/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	120
FL 23 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,100
FL 24 4'	11/17/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	69.0
FL 25 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	900
FL 26 @ 4'	1/19/2021	4'	In-Situ	-	-	-	_	_	-	_	1,700
FL 27 4'	11/17/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	170
NOTES:	-: -: · / 2 0 2 0	•	III Ditta	1,10	1,10	1,10	1,10	1 110	1,10	1,10	1/0

- = Sample not analyzed for that constituent.

CONCENTRATIONS OF BTEX, TPH & CHLORIDE IN SOIL

Mewbourne Oil Company

Carlsbad Water Management System

NMOCD Ref. #: nRM2030230289

NMOCD Ref. #: nRM2030230289													
NMC	OCD Closure C	riteria		10	50	-	-	1,000	-	2,500	10,000		
NMOCI) Reclamation	Standard		10	50	-	-	-	-	100	600		
				SW 840	6 8021B		SW	846 8015M	Ext.	1	4500 Cl		
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)		
FL 28 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	710		
FL 29 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	6,200		
FL 30 4'	11/17/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	63.0		
FL 31 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	430		
FL 32 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	340		
FL 33 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	1,300		
FL 34 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,100		
FL 35 @ 4'	1/6/2021	4'	In-Situ	-	-	=	=	-	-	-	2,200		
FL 36 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	87.0		
FL 37 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	840		
FL 38 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	3,500		
FL 39 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,100		
FL 40 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	5,000		
FL 41 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,300		
FL 42 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,000		
FL 43 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,700		
FL 44 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	5,700		
FL 45 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	8,300		
FL 46 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,900		
FL 47 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	2,200		
FL 48 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	780		
FL 49 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,900		
FL 50 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	6,700		
FL 51 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,800		
FL 52 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,000		
FL 53 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	5,900		
FL 54 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	910		
FL 55 4'	11/25/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	110		
FL 56 4'	11/25/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND		
FL 57 4'	11/25/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	80.0		
FL 58 @ 4'	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	870		
FL 59	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	430		
FL 60 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,900		
FL 61 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,200		
FL 62	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	1,600		
FL 63 @ 4'	1/6/2021	4'	In-Situ	-	-	_	_	-	-	-	3,100		
FL 64 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,500		
FL 65 4'	11/25/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	180		
FL 66 4'	11/25/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	310		
FL 67	1/19/2021	4'	In-Situ	-	-	-	-	-	=	=	1,300		
FL 68 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,200		
NOTES:													

^{- =} Sample not analyzed for that constituent.

CONCENTRATIONS OF BTEX, TPH & CHLORIDE IN SOIL

Mewbourne Oil Company

Carlsbad Water Management System

NMOCD Ref. #: nRM2030230289

NMOCD Ref. #: nRM2030230289													
	CD Closure C			10	50	-	-	1,000	-	2,500	10,000		
NMOCD	Reclamation	Standard		10	50	-	-	-	-	100	600		
				SW 840	6 8021B		SW	846 8015M	Ext.	I	4500 Cl		
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)		
FL 69 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,600		
FL 70 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,000		
FL 71 4'	11/25/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	370		
FL 72	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	1,900		
FL 73	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	1,800		
FL 74 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,500		
FL 75 4'	11/25/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	210		
FL 76 @ 4'	1/6/2021	4'	In-Situ	-	-	=	-	-	-	-	3,100		
FL 77 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	5,000		
FL 78 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,200		
FL 79	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	2,300		
FL 80	1/19/2021	4'	In-Situ	-	-	-	-	-	-	-	2,100		
FL 81 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	5,400		
FL 82 4'	11/25/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	420		
FL 83 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,400		
FL 84 4'	11/25/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	430		
FL 85 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,800		
FL 86 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,700		
FL 87 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,200		
FL 88 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,500		
FL 89 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,400		
FL 90 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	72.0		
FL 91 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,900		
FL 92 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	ND		
FL 93	1/6/2021	5'	In-Situ	-	-	-	-	-	-	-	5,200		
FL 94	1/6/2021	5'	In-Situ	-	-	-	-	-	-	-	2,100		
FL 95	1/6/2021	5'	In-Situ	-	-	-	-	-	-	-	3,300		
FL 96	1/6/2021	5'	In-Situ	-	-	-	-	-	-	-	4,300		
FL 97	1/6/2021	5'	In-Situ	-	-	-	-	-	-	-	9,000		
FL 98	1/6/2021	4'	Excavated	-	-	-	-	-	-	-	5,900		
FL 98 @ 5'	1/7/2021	5'	In-Situ	-	-	-	-	-	-	-	320		
FL 99	1/6/2021	4'	Excavated	-	-	-	-	-	-	-	10,000		
FL 99 @ 5'	1/7/2021	5'	Excavated	-	-	-	-	-	-	-	1,700		
FL 99 @ 5'	1/18/2021	5'	In-Situ	-	-	-	-	-	-	-	2,700		
FL 100	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,500		
FL 101	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	5,600		
FL 102	1/6/2021	4'	Excavated	-	-	-	-	-	-	-	7,500		
FL 102 @ 5'	1/7/2021	5'	In-Situ	-	-	-	-	-	-	-	2,200		
FL 103	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	5,800		
FL 104	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,800		
FL 105 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,200		

^{- =} Sample not analyzed for that constituent.

CONCENTRATIONS OF BTEX, TPH & CHLORIDE IN SOIL

Mewbourne Oil Company

Carlsbad Water Management System

NMOCD Ref. #: nRM2030230289													
NMO	CD Closure C	riteria		10	50	-	-	1,000	-	2,500	10,000		
NMOCD	Reclamation	Standard		10	50	-	-	-	-	100	600		
				SW 840	6 8021B		SW	846 8015M	Ext.		4500 Cl		
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)		
FL 106 @ 4'	1/6/2021	4'	In-Situ	-	ı	-	-	-	-	-	2,700		
FL 107 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	3,000		
FL 108 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	6,200		
FL 109 @ 4'	1/6/2021	4'	In-Situ	ı	ı	-	-	-	-	-	2,600		
FL 110 @ 4'	1/6/2021	4'	In-Situ	ı	ı	-	-	-	-	-	1,100		
FL 111 @ 4'	1/6/2021	4'	In-Situ	ı	ı	-	-	-	-	-	1,200		
FL 112 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,300		
FL 113 @ 4'	1/6/2021	4'	In-Situ	-	1	=	=	=	-	=	4,900		
FL 114 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,600		
FL 115 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	4,600		
FL 116 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	4,700		
FL 117 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	3,900		
FL 118 @ 4'	12/7/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	300		
FL 119 @ 4'	1/6/2021	4'	In-Situ	ı	ı	-	-	-	-	-	3,200		
FL 120 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	1,000		
FL 121 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,600		
FL 122 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,800		
FL 123 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,200		
FL 124 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,900		
FL 125 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,700		
FL 126 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,300		
FL 127 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	1,800		
FL 128 @ 4'	12/7/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	150		
FL 129 @ 4'	12/7/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	540		
FL 130 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	230		
FL 131 @ 4'	12/10/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND		
FL 132 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,300		
FL 133 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	6,200		
FL 134 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	380		
FL 135 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,200		
FL 136 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	7,100		
FL 137 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	1,300		
FL 138 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,300		
FL 139 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	1,300		
FL 140 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	1,600		
FL 141 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,200		
FL 142 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	6,300		
FL 143 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,100		
FL 144 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,000		
FL 145 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	5,900		
FL 146 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	6,700		
NOTES:													

^{- =} Sample not analyzed for that constituent.

CONCENTRATIONS OF BTEX, TPH & CHLORIDE IN SOIL

Mewbourne Oil Company

Carlsbad Water Management System

NMOCD Ref. #: nRM2030230289

NIMO	CD Cleans C	witowio				1KM20302	230289 I	1 000	l	2.500	10.000
NMOCD Closure Criteria NMOCD Reclamation Standard			10	50	-	-	1,000	-	2,500	10,000	
INVIOCO Rectamation Standard			10	50	100 SW 846 8015M Ext.				600		
				SW 840	8021B		CRO+			1	4500 Cl
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
FL 147 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	8,300
FL 148 @ 4'	1/6/2021	4'	In-Situ	-	-	=	-	-	=	-	2,200
FL 149 @ 4'	1/6/2021	4'	In-Situ	-	-	=	-	-	=	-	1,400
FL 150 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,400
FL 151 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	370
FL 152 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	2,400
FL 153 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	2,300
FL 154 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	5,600
FL 155 @ 4'	12/30/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FL 156 @ 4'	12/30/2020	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	ND
FL 157 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	1,300
FL 158 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	180
FL 159 @ 4'	1/6/2021	4'	In-Situ	ı	1	-	-	-	-	-	2,300
FL 160 @ 4'	1/6/2021	4'	In-Situ	ı	1	-	-	-	-	-	2,700
FL 161 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	=	-	2,700
FL 162 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	210
FL 163 @ 3'	1/6/2021	3'	In-Situ	-	1	-	-	-	-	-	ND
FL 164 @ 3'	1/6/2021	3'	Excavated	-	1	-	-	-	-	-	690
FL 164 @ 4'	1/18/2021	4'	In-Situ	-	-	-	-	-	-	-	63.0
FL 165 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	ND
FL 166 @ 4'	1/6/2021	4'	In-Situ	-	ı	-	-	-	-	-	130
FL 167 @ 4'	1/6/2021	4'	In-Situ	ı	1	-	-	-	-	-	120
FL 168 @ 4'	1/6/2021	4'	In-Situ	ı	1	-	-	-	-	-	120
FL 169 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	91.0
FL 170 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	85.0
FL 171 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	220
FL 172 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	810
FL 173 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	3,700
FL 174 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	200
FL 175 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	610
FL 176 @ 3'	1/6/2021	3'	Excavated	-	-	-	-	-	-	-	1,700
FL 176 @ 4'	1/18/2021	4'	In-Situ	ı	1	-	-	-	-	-	110
FL 177 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,600
FL 178 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	1,300
FL 179 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	900
FL 180 @ 3'	1/6/2021	3'	In-Situ	-	-	-	-	-	-	-	150
FL 181 @ 3'	1/6/2021	3'	In-Situ	-	-	-	-	-	=	-	93.0
FL 182 @ 3'	1/6/2021	3'	In-Situ	-	-	-	-	-	=	-	83.0
FL 183 @ 4'	1/6/2021	4'	In-Situ	-	-	=	-	-	=	-	1,100
FL 184 @ 4'	1/6/2021	4'	In-Situ	-	-	=	-	-	=	-	280
FL 185 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	=	-	1,200
NOTES:											

^{- =} Sample not analyzed for that constituent.

CONCENTRATIONS OF BTEX, TPH & CHLORIDE IN SOIL

Mewbourne Oil Company

Carlsbad Water Management System

NMOCD Ref. #: nRM2030230289

NMOCD Ref. #: nRM2030230289											
	CD Closure C			10	50	-	-	1,000	-	2,500	10,000
NMOCD Reclamation Standard			10	50	-				100	600	
				SW 840	6 8021B	SW 846 8015M Ext.			4500 Cl		
Sample ID	Date	Depth	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
FL 186 @ 3'	1/6/2021	3'	In-Situ	ı	-	-	-	-	-	-	210
FL 187 @ 3'	1/6/2021	3'	In-Situ	ı	-	-	-	-	-	-	71.0
FL 188 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,200
FL 189 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	3,900
FL 190 @ 4'	1/6/2021	4'	In-Situ	-	1	-	-	-	-	-	2,400
FL 191 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	130
FL 192 @ 4'	1/6/2021	4'	Excavated	-	-	-	-	-	-	-	9,100
FL 192 @ 5'	1/7/2021	5'	In-Situ	-	-	-	-	-	-	-	2,900
FL 193 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	4,400
FL 194 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,300
FL 195 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	5,200
FL 196 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	420
FL 197 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,300
FL 198 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	3,700
FL 199 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	630
FL 200 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,300
FL 201 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	930
FL 202 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	1,500
FL 203 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	2,200
FL 204 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	310
FL 205 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	1,200
FL 206 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	150
FL 207 @ 4'	1/6/2021	4'	In-Situ	-	-	-	-	-	-	-	300
FL 208 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 209 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 210 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 211 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 212 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 213 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 214 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 215 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 216 @ 4'	1/7/2021	4'	In-Situ		ND	ND	ND	ND	ND	ND	-
FL 217 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 218 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 219 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 220 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 221 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 222 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 223 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
FL 224 @ 4'	1/7/2021	4'	In-Situ	ND	ND	ND	ND	ND	ND	ND	-
NOTES:											

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Italicized te t enote a on ent ation t at e ee t e D e la ation tan a

^{- =} Sample not analyzed for that constituent.

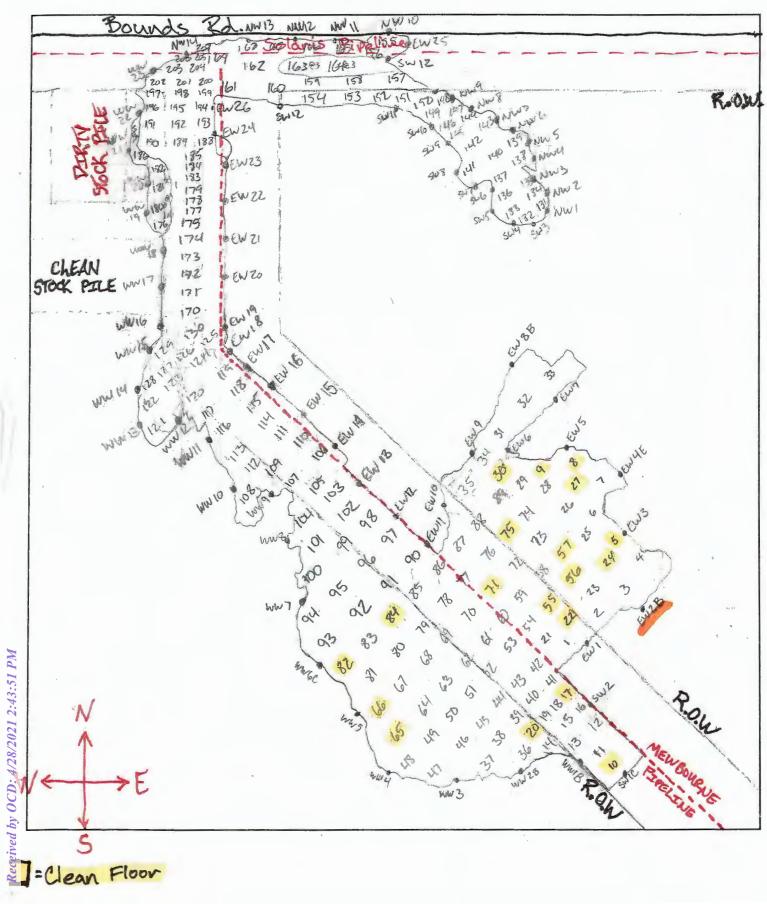
Appendix A Field Data & Soil Profile Logs

Field Map

Project: CWMS

Date: 11/18/20

Released to Imaging: 8/23/2021 11:37:48 AM





Date: 11/9/20

Project: CWMS Release

Project Number: 13296 Latitude: 32.26/438 Longitude: -104_163478

Sample ID	PID/Odor	Chloride Conc.	GPS
TIE Swface		8.8 25336	
7101			
T1@Z'			
TI@3'			
(T1041		5644	
T1051		4848	
TTI@6'			
TTI@ 7'			
TT1@8'		>2440	
TI@9'		1016	
TT1 @ 101		516	
TIO IL		464	
TT2@ Surface		8.4 19928	
(TZ @ 1'			
TZ @ 2'			
TZ @ 3'			
TZ @ 4'			
7205		1632	/
TZ @ (0'		774	
T3 @ Surface		8.9 25336	
T301'			
7302			
T3@ 3'			
T30 4'		>2440	
T3@51		572	
T386'		ND	
T40 Swface		8.4 25334	
T 40 11			
T 48 2'			
T 4@ 3'			
(40,4'		>2440	
T 405'		72440	
T406		748	
74071		268 92 > 25336	
150 Surface		12 > 25 336	
T 5 @ 1'			

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

Date:	 ı/	9/

Project: CWMS Release

Project Number: 13296 Latitude: 32.261438 Longitude: -104.163478

Sample ID	PID/Odor	Chloride Conc.	GPS
TT5@ 2'	_		
TT 5 @ 3'		572	
	-		
	_		
TO THE STATE OF	_		
5H1@ 2'12'		120	
EHZ@Z'lz		ND 1.4	
NH 2 @ 2'12'		ND 1.4	
VAI @ 21/21		120	
EH 1@ 21/2'		ND L4	
UHI @ 21/21		ND LY	
Contirma	Alba	Samples	
EW I	None	148	
3W Z	Mare	412	
5W3	None	516	
W 4	None	988	
W5	None	184	
W6	Nane	274	
W7	Nane	316	
W 8	None	1340	
W9	Ware	412	the majors and a second or an arrangement of the second of
W4B	None	876	Company Charge Company of the Compan
L1@3'		1933	
L 2@3'		1432	
L3@3'		678	
1402'	_	876	
L5@3'	_	1432	
L6 @3'	-	M32	
L703'	_	13W	
T863,	-	1340	
L9@2"	_	1432	
W 38 B	-	1340 1432 184 1616 1340	
W4B		1616	
W4C	-	1340	
L 8@3' L 9@2' W 4B W 4C W 4D		876 364	
WYE	-	364	

Sample Point = SP #1@ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = 5P #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas



Date:

11/12/20

Project:

Project Number:

Latitude: 37.261438

Longitude: -104, 163428

Sample ID	PID/Odor	Chloride Conc.	GPS
SWIC'	none	316	
SW Z	rone	< 120	
NW 1	hierie	> 2440	
NW Z	Wille	> 2440	
FL 1@ 41	vois	1252	9.4
FL 2@ 41	lime	>2440	
L 3@ 4'	The S	1016	
1 40 4'	sere	748	
L 50 4'	News	572	
260 4'	ware	628	
L 7@ 4'	Nove	1016	
L 8@ 4'	rene	120	
2 9 @ 4!	10000	364	
L 10@ 3'	Mone	148	
L 11 8 3'	vene	812	
120 41	vers	628	
L 13 @ 4'		>2440	
L 148 4'	nosi	1432	
L 50 4'	hight	>2440	
L 16@ 4'	nous	1252	
L 17 @ 4'	hore	224	
L 18 @ 4'	bialy.	>2440	
1984	wir	1432	
2004		316	
WIB	mare	<120	
uw2B	nene	268	
W 3	nene	184	
L 21@4'	von	1432	
L 22@4'	novi	184	
L 23 Q4'	11	2440	
L 29 8 4	voil	268 1528	
L 25 @ 4'	nai	1528	
L 26 @ 4!	son.	1140	
L 27 8 4	was	412	
L 28 @ 4'	how	41 <u>2</u> 688	
L 2904'	highest	≥ 2440	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = IT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples = SP #1 @ 5b or SW #1b

Released to Imaging: 8/23/2021 11:37:48 AM

Stockpile = Stockpile #1



Date:

Project: Project Number:

Latitude: 32.26/438

Longitude: -104.163428

Sample ID	PID/Odor	Chloride Conc.	GPS
FL 30@ 4'	New	412	
FL 31@4'	ATSO 2	948	
FL 32 @ 4' FL 33 @ 4'	NESS	688	
FL 33 @ 4'	100 11	1740	
FL 34 @ 4'		2440	
FL 35 @ 4'	hight high	2440	
WW 4	NEW	688	
WW 5	will	1432	
WW 4B	Was sa	NN 6120	
NW 5B	1202	GS1> QN	
Fh 36 @ 4	Silventia	184	
L 37 0 4'		876	
h 38 @ 41	No	1988	
EL 39 @ 41	26.0	1988 >2490	
EL 40 @ 4'	195	72440	
h 41 6 4	Sales .	2124	
FL 42 0 4'	-	72440	
1 43 @ 4'	-	>2440	
L 44 @ 4'	y	>2440	
2 N5 @ 4'		>2440	
WW 6	Light	2124	
WW 6B	3	2440	
NWGC	- California	184	
NW 7	Light	2124	
UW 7B	nove	1528	
NW 7C	wore.	1432	
EW 10	more	510	
1 46 @ 41	-	>2440	
L 47 @ 41	26.	464	
L 48 @ 41	-	101/a	
L 48 @ 41	~	72440	
L 50 Q 4'	Ser*	>2440	
L 51 @ 41	-	>2990	
L 57 @ 41		>2440	
L 53 @ 4'	340-	> 2440 > 2440 > 2440 > 2440 > 2440	
=L 54 @ 4'	_	412	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples = SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

Received by OCD: 4,



Date:

Project:

Project Number:

Latitude: 32.261438

Longitude: <u>-104.163428</u>

Sample ID	PID/Odor	Chloride Conc.	GP5
FL 55 @ 4'	nove	148	
2 56 0 4	-	268	
25704	-	ND	
CL 58 @ 4'	-	812	
25904		412	
2 60 € 4'	-	72440	
2 61 @ 4'		72440	
		1432	22 20 20 20 20 20 20 20 20 20 20 20 20 2
4 62 6 4		2440	
2 64 8 4	- marine and a second a second and a second	72440	
2 65 @ 4'	TO THE PARTY OF TH	184	
L 62 6 4	The state of the s	184	
2 67 6 4		688	
	_	2440	A STATE OF THE STA
2 68 e 4'	-	2440	The state of the s
1 70 @ 4'		2440	The state of the s
1 70 Q 4' L 71 @ 4'		412	CONTROL OF
1 72 8 4'	CONTESTION OF THE PARTY OF THE	1860	
1 72 @ 4' 1 73 @ 4'	-	1252	
L 74 6 4		2440	A STATE OF THE STA
L 74 @ 4'	-	148	
The second secon		2440	50
L 76 @ 4'	6	72440	
L 78 @ 4'	~	72440	
L 78 @ 4' L 79 @ 4'	~	1252	
L 80 @ 4'		812	
L 81 @ 4'	~	>2440	
2 82 8 4'	_	184	
2 83 @ 4'	_	>2440	
1 84 @ 4'		31/0	
1 85 0 4		>7440	
1 84 6 4 2 85 6 4 2 86 6 4 2 88 6 4 2 89 6 4 2 89 6 4 2 90 6 4		>7440	
L 81 @ 4'		7uub	
1 88 @ 4'	-	2776	
L 86 @ 4' L 87 @ 4' L 88 @ 4' L 89 @ 4'	7	316 >2440 >2440 2440 2276 2440	
L 89 @ 4° L 90 @ 4		5232	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = IT #1 @ ##

Refusal = SP #1 @ 4'-R Soil Intended to be Deferred = SP #1 @ 4' In-Situ Resamples= SP #1 @ Sb or SW #1b

Released to Imaging: 8/23/2021 11:37:48 AM

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

11/24/20

Project:

MS RELEASE

Project Number:

Latitude: 32,261438

Longitude: <u>-104_163428</u>

Sample ID	PID/Odor	C C	hloride Conc.	GPS
FL 91 @ 4'	none	3832		
FL 92@41	-	6084		
		5644		
-L 93 @ 4'	-	3832		
L 95 @ 4'		4848		
Th 96 @ 4'	/	5644		
W 2B		ND		
EW II		120	ANTERNATION CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR	
	-	1720	######################################	
WW Z		148	CONTRACTOR	
NW 3		184	The material states and the second of the se	
W 13	and the same of th	IZO	A CONTRACTOR CONTRACTO	
SW 14		224		The second secon
PwiP	2	148	The second secon	Company Compan
W 10		120	THE RESIDENCE OF THE PROPERTY	Control Contro
VW II		ND		
W 15		NO	1	
L 97 @ 4		NO 5232	ALEEN AND AND AND AND AND AND AND AND AND AN	
TL 98@ 4'		8900		
7 99 @ 4'		10432		
1 100 @ 4'		5232	A market and committee the control of the control o	
L 101 @ 4"		6084		
2 102 6 4'		8240		
L 103 @4"		6084		
		3832		
1 125 A 4'		2736		
1 10/2 @ 4'		1988		
		2504		
L 107 @ 4'		5232		
1 109@4"		1988		
1 10 @ 4'		1437		
1 111 @ 4'	1	1432		
1 11204	/	7076		
1 113 64'	-	7076 5644		
20 114 0 4		3832 4848		
11504		4848		

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Resamples= SP #1 @ 5b or SW #1b

Released to Imaging: 8/23/2021 11:37:48 AM

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas



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- 1	J	-	4	٦

12/6/20

er: 13796 Project: CL Project Number:

. Latitude:

Longitude:

Sample ID	PID/Odor	Chloride Conc.	GPS
SW 10	-	ND	
SW 11	/	ND	
NW 6	/	NO	
NW 7		Ma	
NW 8		ND	
NW 9		NN	
VW 10		NO	
EW 20		WA	
W 21	was a second and a second a second and a second a second and a second	NA	
W 22	The state of the s	NA	
NW 17	DOWN THE	NO	CONTRACTOR OF THE PROPERTY OF
NW 12	THE STATE OF THE S	ND	24
WW 19		948	The contract of the contract o
WW 19B	THE PARTY OF THE P	ND	
VW ZD	2	868	
NW ZOB		NO	
NW 20		ALA	
VW 21		11	
VW 22	COMPANY OF THE PROPERTY OF THE		
W 23	The state of the s	VI	
EW 24		M	
JW II		NA	
JW 12	"Janguage" 1 ¹ ¹	NÃ	
12 13		NIV	
IW 14		NA	
SW 12		NN	
W 25	-	NY	
W 26	-	NS	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples = SP #1 @ Sb or SW #1b

Released to Imaging: 8/23/2021 11:37:48 AM

Stockpile = Stockpile #1

		Date:	
Project:			
(3/2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-			
Project Number:	Latitude:	Longitude:	

Sample ID	PID/Odor	Chloride Conc.	GPS
EW 16	-	120	
WW 12	-	184	
WW 13		464	
WW 14		120	
WW15		120	
EW 17	-	とめ	
EW 18		NO	
FL 116 P4'		3668	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EL 117 @ 4'		7824	
	-	224	200-200-200-200-200-200-200-200-200-200
FL 119 @ 40		3368	
		1432	
TI 121 DUL		3668	
		2824	
7 122 64'			
FL 123 E 4'		3988	
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1328	
FL 125 e4'	SALE TO SECURIO SECURIO SE MADELLA	3078	
FL 126 A 4'		Z13Z	
		1386	
		184	
TO THE RESIDENCE OF THE PARTY O		412	and the grandest of the state o
00 130 0 4		638	
SW3		ND ND	
JW 1 EW 19			
EW 19 VW 16		ND	
5W 4		120	
		ND	
		ND	
JW 2	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	148	
IW 3		120	
W 6		120	
w q		NO	
JW 5		ND	
W 7		NP	
m 8		NP	
SW 9		ND	
Sample Point = SP #1 @ ## etc		Fest Trench = TT #1 @ ##	Resamples= SP #1 @ 5b or SW #1b
Floor = FL #1 etc		Refusal = SP #1 @ 4'-R	Stockpile = Stockpile #1
Sidewall = SW #1 etc		Soil Intended to be Deferred = SP #1 @ 4' In-Situ	GPS Sample Points, Center of Comp Area

Date:	12/10/	20
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Project:	CWMS	Releas	se_	Date.	12(101-0
Project Numb	er:	13296	Latitude:	Longitude:	

Sample ID	PID/Odor	Chloride Conc.	GPS
FL 131 @ 4"	-	NO	
FL 132 8 4'	-	3368	·
2 133 8 4		558	
7. 134 8 4	_	1172	
1. 125 € 4'	-	3088	
2 136 e 4'	-	6500	
2 137 @ 4	-	1016	
EL 188 @ 4'		2348	10 1 10 1 10 1 10 1 10 1 10 1 10 1 10
L 189 € 4'	-	1740	
L 140 e 4'	-	1477	
L 141 E 4'		1437	
L 142 04		5992	
2 143 @ 4'		5992	AND SHOW BY COMPANY OF THE PROPERTY OF THE PRO
	The second second	4327	
1 145 6 4		4308	
1 146 8 4		5992	
1 147 8 4		6560	
L 148 @ 4.		6500	
		5492	
		5992	
L 150 e 4.		628	Service and the service of the servi
			The second secon
The Control of the Co	-	3088 3083	
		5528	
SECTION AND DESCRIPTION OF THE PERSON OF THE		N.Ž	
L 156 @ 4'		ND	
1 157 0 4'	-	1172	
1 158 € 4'		120	
L 159 0 4		1740	
L 160 e 4'		25 /2	
L 161 e 4'		1740	
L 162 e 4.		316	
L 163 e 83'	-	NO	
L 169 0 3°		NI	
L 165 @ 4'	-	ND	
L 166 & 4'	-	120	
Sample Point = SP #1 @ ## etc		Test Trench = TT #1 @ ##	Resamples= SP #1 @ Sb or SW #1b
Floor = FL #1 etc		Refusal = SP #1 @ 4'-R	Stockpile = Stockpile #1
Sidewall = SW #1 etc		Soil Intended to be Deferred = SP #1 @ 4' In-Situ	GPS Sample Points, Center of Comp Ara



Date:

Project:

Project Number:

Latitude:

Longitude:

Sample ID	PID/Odor	Chloride Conc.	GPS
1204	-	2132	
L 13@4'	-	2824	
L 15 @ 4'	-	3668	
FL 12 @ 4'	-	4700	
L 23 0 4'	-	3668	
L 29 @ 4'	_	5528	
L 3404	-	2580	
1 35 @ 4'	-	1732	
L 39 @ 4'	_	4328	
L 40 @ 4'	-	4700	
L 41 @ 4'		2824	
1 4204		3088	
L 43 @ 4'	-	3368	
1 44 @ 4		4700	
1 45 8 4		5992	
12 46 e 4'		1928	+
2 49 @ 4		3367	
710		4700	
		2274	
25204		2570	+
L 53 @ 4'		11220	
		7500	-
1 60 e 4'		2580 2088	
1 62 0 4		3088 3088	
1 64 04		3668	
1 69 8 4		1732	
1 70 0 4		25%	
- 1901		2580	1
16 6 4	/	2580	
177 04		3668	
- L 78 € 1'	_	3660	
L 31 @ 4'		4328	
EL 83 @ 4'		2132	
L 85 @ 4'	-	5528	
-V 80 e 41		3088	
2 87 e 4.		2348	and the second second second
Sample Point = SP #1 @ ## etc		Test Trench = TT #1 @ ##	Resamples= SP #1 @ 5b or SW #1b
Floor = FL #1 etc		Refusal = SP #1 @ 4'-R	Stockpile = Stockpile #1
Sidewall = SW #1 etc		Soil Intended to be Deferred = SP #1 @ 4' In-Situ	GPS Sample Points, Center of Comp Are



_	1	1	
Date:	1/5	121	

Project:	CWMS	Release		421-1
Project Number	er: 43?	9(a Latitude:	Longitude	-

Sample (D	PID/Odor	Chloride Conc.	GPS
L 88 @ 4"		1928	
1 89 04'		1732	
L 68 @ 41		2440	
		· ·	
	1		
	;	•	/
		•	
			+
		•	
		^	
Sample Point = SP #1 @ ## etc		Test Trench = TT #1 @ ##	Resamples= SP #1 @ 5b or SW #1b
Floor = FL #1 etc		Refusal = SP #1 @ 4'-R	Stockpile = Stockpile #1
Sidewall = SW #1 etc		Soil intended to be Deferred = SP #1 @ 4' In-Situ	GPS Sample Points, Center of Comp Are
Sidewall - See 112 Cit		See titudings to see selenter - st its @ 4 41 off	To outspice a singly content of some rice

55		
6		
4		<u> </u>
Page	TECH_	
	Environmental & Safety	Solutions, Inc

Date:	1/5/21	

Project	: CWMS	Release		
Project	Number:	13796	Latitude:	

Longitude: ___

Sample ID	PID/Odor	Chloride Conc.	GPS
FL 167 @ H		120	
FL 168 @ 4'		148	
7169 @ 4'		120	
1 170 @ H		120	
FL 171 @ 4'		268	
7 172 € 4		812	
FL 173 @ 4'		545Z	
7 174 @ W		<b>817</b>	
1 75 @ 4'		184	
FL 176 @ 3'	_	748	
FL 177 @ W'	_	1740	
FL 178 & 4'		2352	
FL 179 @ 4' FL 180 @ 3'		1340	
		268	
2 181 6 3'		120	
-L 182 @ 3'	_	120	
1 183 @ H'		572	
F 184 @ 4'	_	364	
7_ 185 e 4'		1092	
FL 186 @ 3'		148	
L 187 e 3	_	NO	
188 04	-	1740	
1 189 @ 4'		4276	
1 190 @ H	-	2808	
2 191 @ 4.	<b>*</b>	184	
T 192 @ 4'	~	8892	
L 193 @ 4'		3936	
1 194 @ 4	_	3064 4636	
L 195 8 4	-	4636	
-L 196 @ 4'		572	
107 8 11		2144 3624	
FL 198 e 4°	_	3624	
1 199 @ 4'		364 3936 572 1258	
7 200 € 4°		3936	
FL 198 e 4' FL 199 e 4' FL 201 e 4' FL 202 e 4'		572	
FL 202 & H'		1257	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1



Date: 1/5/21

Project:	CWMS	Release

Project Number: 13296 Latitude: Longitude:

	Samp	ole ID	PID/Odor	Chloride Conc.	GPS
-[_	203 6	3 M.		2276	
1	204 6		-	184	
1	205 6	1 ,, (	-	1092	
FL	206 6	4	-	148	
=1	207 6	2 41	_	516	
	2010			310	
				. •	
				,	
				* -	
					1
					1
		***************************************			
					+

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b Stockpile = Stockpile #1



Project:		Date:			
Project Number:		Latitude:	de:		
Sample ID	PID/Odor		Chloride Conc.	GPS	
8(4)		1011-			

Sample ID	PID/Odor	Chloride Conc.	GPS
SW 1	none		
SWIB	mone	1016	
3W 1C	more	316	
SW East	some	NN	
SW Floor	Varl	268	
SW W537	none	148	
ow East		184	
ex plan		2276	
W WBY	the special section of the section o	>2440	
W FloodB	Service and the service of the servi	876	
The second secon		Some de la Companya del companya de la companya de la companya del companya de la companya del la companya del la companya de la companya del la companya de la companya de la companya del la company	
COMMINISTRATION OF THE PROPERTY OF THE PROPERT	100000000000000000000000000000000000000	The second secon	
and we shall be the state of th			
A TOTAL WHITE THE STATE OF THE	The second secon	The second state of the second	Commence of the second
The state of the s	A STATE OF THE PROPERTY OF THE	A STATE OF S	
The commence of the commence o			
	-	######################################	

Sample Point = SP #1@ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Fest Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #15

Stockpile = Stockpile #1



### **Soil Profile**

11/9/20 Date: pad Water Management System Re Project: Latitude: 32.261438 Longitude: -104.163478 Project Number: Depth (ft. bgs) Top Soil Description 

Received by OCD: 4/28/2021 2:43:51 PM

## Appendix B Laboratory Analytical Reports



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

November 17, 2020

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241

TEL: (575) 393-5905

FAX:

RE: CWMS Release OrderNo.: 2011574

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 16 sample(s) on 11/11/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: TT1 @ Surface

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-001 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS						Analyst: <b>JMT</b>
Chloride	19000	1500		mg/Kg	500	11/16/2020 3:06:42 PM 56440
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/12/2020 11:22:47 PM 56378
Surr: BFB	99.7	70-130		%Rec	1	11/12/2020 11:22:47 PM 56378
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	660	98		mg/Kg	10	11/12/2020 11:52:07 PM 56379
Motor Oil Range Organics (MRO)	630	490		mg/Kg	10	11/12/2020 11:52:07 PM 56379
Surr: DNOP	0	30.4-154	S	%Rec	10	11/12/2020 11:52:07 PM 56379
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	11/12/2020 11:22:47 PM 56378
Toluene	ND	0.046		mg/Kg	1	11/12/2020 11:22:47 PM 56378
Ethylbenzene	ND	0.046		mg/Kg	1	11/12/2020 11:22:47 PM 56378
Xylenes, Total	ND	0.092		mg/Kg	1	11/12/2020 11:22:47 PM 56378
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%Rec	1	11/12/2020 11:22:47 PM 56378
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	11/12/2020 11:22:47 PM 56378
Surr: Dibromofluoromethane	104	70-130		%Rec	1	11/12/2020 11:22:47 PM 56378
Surr: Toluene-d8	91.3	70-130		%Rec	1	11/12/2020 11:22:47 PM 56378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 23

Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: TT1 @ 11'

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-002 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	440	60	mg/Kg	20	11/14/2020 10:16:45 AM 56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	11/12/2020 11:49:56 PM 56378
Surr: BFB	104	70-130	%Rec	1	11/12/2020 11:49:56 PM 56378
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/13/2020 12:15:23 AM 56379
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/13/2020 12:15:23 AM 56379
Surr: DNOP	97.1	30.4-154	%Rec	1	11/13/2020 12:15:23 AM 56379
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>	Г				Analyst: <b>DJF</b>
Benzene	ND	0.023	mg/Kg	1	11/12/2020 11:49:56 PM 56378
Toluene	ND	0.046	mg/Kg	1	11/12/2020 11:49:56 PM 56378
Ethylbenzene	ND	0.046	mg/Kg	1	11/12/2020 11:49:56 PM 56378
Xylenes, Total	ND	0.093	mg/Kg	1	11/12/2020 11:49:56 PM 56378
Surr: 1,2-Dichloroethane-d4	92.0	70-130	%Rec	1	11/12/2020 11:49:56 PM 56378
Surr: 4-Bromofluorobenzene	104	70-130	%Rec	1	11/12/2020 11:49:56 PM 56378
Surr: Dibromofluoromethane	103	70-130	%Rec	1	11/12/2020 11:49:56 PM 56378
Surr: Toluene-d8	90.5	70-130	%Rec	1	11/12/2020 11:49:56 PM 56378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: TT2 @ Surface

 Project:
 CWMS Release
 Collection Date: 11/9/2020

 Lab ID:
 2011574-003
 Matrix: SOIL
 Received Date: 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	23000	1500	mg/Kg	500	11/16/2020 3:19:06 PM 56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/13/2020 12:17:06 AM 56378
Surr: BFB	101	70-130	%Rec	1	11/13/2020 12:17:06 AM 56378
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	16	9.9	mg/Kg	1	11/13/2020 12:38:37 AM 56379
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/13/2020 12:38:37 AM 56379
Surr: DNOP	98.0	30.4-154	%Rec	1	11/13/2020 12:38:37 AM 56379
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst: <b>DJF</b>
Benzene	ND	0.025	mg/Kg	1	11/13/2020 12:17:06 AM 56378
Toluene	ND	0.049	mg/Kg	1	11/13/2020 12:17:06 AM 56378
Ethylbenzene	ND	0.049	mg/Kg	1	11/13/2020 12:17:06 AM 56378
Xylenes, Total	ND	0.099	mg/Kg	1	11/13/2020 12:17:06 AM 56378
Surr: 1,2-Dichloroethane-d4	92.4	70-130	%Rec	1	11/13/2020 12:17:06 AM 56378
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/13/2020 12:17:06 AM 56378
Surr: Dibromofluoromethane	101	70-130	%Rec	1	11/13/2020 12:17:06 AM 56378
Surr: Toluene-d8	89.7	70-130	%Rec	1	11/13/2020 12:17:06 AM 56378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: TT2 @ 6'

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-004 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	160	60	mg/Kg	20	11/14/2020 11:06:08 AM	Л 56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/13/2020 3:26:48 AM	56378
Surr: BFB	94.9	70-130	%Rec	1	11/13/2020 3:26:48 AM	56378
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	11/13/2020 1:02:01 AM	56379
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/13/2020 1:02:01 AM	56379
Surr: DNOP	101	30.4-154	%Rec	1	11/13/2020 1:02:01 AM	56379
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>	-				Analyst	DJF
Benzene	ND	0.023	mg/Kg	1	11/13/2020 3:26:48 AM	56378
Toluene	ND	0.047	mg/Kg	1	11/13/2020 3:26:48 AM	56378
Ethylbenzene	ND	0.047	mg/Kg	1	11/13/2020 3:26:48 AM	56378
Xylenes, Total	ND	0.093	mg/Kg	1	11/13/2020 3:26:48 AM	56378
Surr: 1,2-Dichloroethane-d4	94.9	70-130	%Rec	1	11/13/2020 3:26:48 AM	56378
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	11/13/2020 3:26:48 AM	56378
Surr: Dibromofluoromethane	107	70-130	%Rec	1	11/13/2020 3:26:48 AM	56378
Surr: Toluene-d8	88.0	70-130	%Rec	1	11/13/2020 3:26:48 AM	56378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: TT3 @ Surface

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-005 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	30000	1500	mg/Kg	500	0 11/16/2020 3:31:30 PM	56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/13/2020 3:53:53 AM	56378
Surr: BFB	100	70-130	%Rec	1	11/13/2020 3:53:53 AM	56378
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	780	9.5	mg/Kg	1	11/13/2020 1:25:18 AM	56379
Motor Oil Range Organics (MRO)	440	47	mg/Kg	1	11/13/2020 1:25:18 AM	56379
Surr: DNOP	109	30.4-154	%Rec	1	11/13/2020 1:25:18 AM	56379
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	11/13/2020 3:53:53 AM	56378
Toluene	ND	0.049	mg/Kg	1	11/13/2020 3:53:53 AM	56378
Ethylbenzene	ND	0.049	mg/Kg	1	11/13/2020 3:53:53 AM	56378
Xylenes, Total	ND	0.098	mg/Kg	1	11/13/2020 3:53:53 AM	56378
Surr: 1,2-Dichloroethane-d4	93.8	70-130	%Rec	1	11/13/2020 3:53:53 AM	56378
Surr: 4-Bromofluorobenzene	99.1	70-130	%Rec	1	11/13/2020 3:53:53 AM	56378
Surr: Dibromofluoromethane	106	70-130	%Rec	1	11/13/2020 3:53:53 AM	56378
Surr: Toluene-d8	87.7	70-130	%Rec	1	11/13/2020 3:53:53 AM	56378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: TT3 @ 6'

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-006 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	ND	60	mg/Kg	20	11/14/2020 11:55:31 AM	Л 56440
EPA METHOD 8015D MOD: GASOLINE RANGE	<u> </u>				Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/13/2020 4:20:58 AM	56378
Surr: BFB	99.8	70-130	%Rec	1	11/13/2020 4:20:58 AM	56378
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/13/2020 1:48:32 AM	56379
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/13/2020 1:48:32 AM	56379
Surr: DNOP	111	30.4-154	%Rec	1	11/13/2020 1:48:32 AM	56379
EPA METHOD 8260B: VOLATILES SHORT LIST	Г				Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	11/13/2020 4:20:58 AM	56378
Toluene	ND	0.048	mg/Kg	1	11/13/2020 4:20:58 AM	56378
Ethylbenzene	ND	0.048	mg/Kg	1	11/13/2020 4:20:58 AM	56378
Xylenes, Total	ND	0.096	mg/Kg	1	11/13/2020 4:20:58 AM	56378
Surr: 1,2-Dichloroethane-d4	93.0	70-130	%Rec	1	11/13/2020 4:20:58 AM	56378
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	11/13/2020 4:20:58 AM	56378
Surr: Dibromofluoromethane	105	70-130	%Rec	1	11/13/2020 4:20:58 AM	56378
Surr: Toluene-d8	89.4	70-130	%Rec	1	11/13/2020 4:20:58 AM	56378

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: TT4 @ Surface

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-007 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	JMT
Chloride	27000	1500	mg/Kg	500	0 11/16/2020 3:43:55 PM	56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	6.8	4.9	mg/Kg	1	11/13/2020 3:13:40 AM	56381
Surr: BFB	102	70-130	%Rec	1	11/13/2020 3:13:40 AM	56381
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	34	9.5	mg/Kg	1	11/13/2020 5:37:32 AM	56385
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/13/2020 5:37:32 AM	56385
Surr: DNOP	92.1	30.4-154	%Rec	1	11/13/2020 5:37:32 AM	56385
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst	DJF
Benzene	ND	0.025	mg/Kg	1	11/13/2020 3:13:40 AM	56381
Toluene	ND	0.049	mg/Kg	1	11/13/2020 3:13:40 AM	56381
Ethylbenzene	ND	0.049	mg/Kg	1	11/13/2020 3:13:40 AM	56381
Xylenes, Total	ND	0.099	mg/Kg	1	11/13/2020 3:13:40 AM	56381
Surr: 1,2-Dichloroethane-d4	112	70-130	%Rec	1	11/13/2020 3:13:40 AM	56381
Surr: 4-Bromofluorobenzene	99.9	70-130	%Rec	1	11/13/2020 3:13:40 AM	56381
Surr: Dibromofluoromethane	109	70-130	%Rec	1	11/13/2020 3:13:40 AM	56381
Surr: Toluene-d8	98.1	70-130	%Rec	1	11/13/2020 3:13:40 AM	56381

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Client Sample ID: TT4 @ 7'

Collection Date: 11/9/2020

**Lab ID:** 2011574-008 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	200	60	mg/Kg	20	11/14/2020 12:20:12 PM	Л 56440
EPA METHOD 8015D MOD: GASOLINE RANG	E				Analyst	DJF
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/13/2020 4:38:44 AM	56381
Surr: BFB	102	70-130	%Rec	1	11/13/2020 4:38:44 AM	56381
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/13/2020 7:13:32 AM	56385
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/13/2020 7:13:32 AM	56385
Surr: DNOP	91.7	30.4-154	%Rec	1	11/13/2020 7:13:32 AM	56385
<b>EPA METHOD 8260B: VOLATILES SHORT LIS</b>	ST .				Analyst	DJF
Benzene	ND	0.025	mg/Kg	1	11/13/2020 4:38:44 AM	56381
Toluene	ND	0.050	mg/Kg	1	11/13/2020 4:38:44 AM	56381
Ethylbenzene	ND	0.050	mg/Kg	1	11/13/2020 4:38:44 AM	56381
Xylenes, Total	ND	0.10	mg/Kg	1	11/13/2020 4:38:44 AM	56381
Surr: 1,2-Dichloroethane-d4	104	70-130	%Rec	1	11/13/2020 4:38:44 AM	56381
Surr: 4-Bromofluorobenzene	94.7	70-130	%Rec	1	11/13/2020 4:38:44 AM	56381
Surr: Dibromofluoromethane	106	70-130	%Rec	1	11/13/2020 4:38:44 AM	56381
Surr: Toluene-d8	105	70-130	%Rec	1	11/13/2020 4:38:44 AM	56381

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: TT5 @ Surface

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-009 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	JMT
Chloride	30000	1500	mg/Kg	500	0 11/16/2020 4:21:07 PM	56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/13/2020 6:03:53 AM	56381
Surr: BFB	107	70-130	%Rec	1	11/13/2020 6:03:53 AM	56381
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	9.7	9.6	mg/Kg	1	11/13/2020 7:37:38 AM	56385
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/13/2020 7:37:38 AM	56385
Surr: DNOP	107	30.4-154	%Rec	1	11/13/2020 7:37:38 AM	56385
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	11/13/2020 6:03:53 AM	56381
Toluene	ND	0.047	mg/Kg	1	11/13/2020 6:03:53 AM	56381
Ethylbenzene	ND	0.047	mg/Kg	1	11/13/2020 6:03:53 AM	56381
Xylenes, Total	ND	0.095	mg/Kg	1	11/13/2020 6:03:53 AM	56381
Surr: 1,2-Dichloroethane-d4	107	70-130	%Rec	1	11/13/2020 6:03:53 AM	56381
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/13/2020 6:03:53 AM	56381
Surr: Dibromofluoromethane	109	70-130	%Rec	1	11/13/2020 6:03:53 AM	56381
Surr: Toluene-d8	104	70-130	%Rec	1	11/13/2020 6:03:53 AM	56381

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: TT5 @ 3'

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-010 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	230	60	mg/Kg	20	11/14/2020 12:44:56 PM	Л 56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/13/2020 6:32:25 AM	56381
Surr: BFB	100	70-130	%Rec	1	11/13/2020 6:32:25 AM	56381
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/13/2020 8:01:21 AM	56385
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/13/2020 8:01:21 AM	56385
Surr: DNOP	84.3	30.4-154	%Rec	1	11/13/2020 8:01:21 AM	56385
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>	Г				Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	11/13/2020 6:32:25 AM	56381
Toluene	ND	0.047	mg/Kg	1	11/13/2020 6:32:25 AM	56381
Ethylbenzene	ND	0.047	mg/Kg	1	11/13/2020 6:32:25 AM	56381
Xylenes, Total	ND	0.094	mg/Kg	1	11/13/2020 6:32:25 AM	56381
Surr: 1,2-Dichloroethane-d4	110	70-130	%Rec	1	11/13/2020 6:32:25 AM	56381
Surr: 4-Bromofluorobenzene	99.1	70-130	%Rec	1	11/13/2020 6:32:25 AM	56381
Surr: Dibromofluoromethane	119	70-130	%Rec	1	11/13/2020 6:32:25 AM	56381
Surr: Toluene-d8	99.2	70-130	%Rec	1	11/13/2020 6:32:25 AM	56381

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SH1 @ 2.5'

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-011 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	74	60	mg/Kg	20	11/14/2020 12:57:17 PM 56440
EPA METHOD 8015D MOD: GASOLINE RANGE	<b>:</b>				Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/13/2020 11:21:11 AM 56381
Surr: BFB	97.0	70-130	%Rec	1	11/13/2020 11:21:11 AM 56381
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/13/2020 8:25:15 AM 56385
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/13/2020 8:25:15 AM 56385
Surr: DNOP	81.7	30.4-154	%Rec	1	11/13/2020 8:25:15 AM 56385
EPA METHOD 8260B: VOLATILES SHORT LIST	Γ				Analyst: <b>DJF</b>
Benzene	ND	0.024	mg/Kg	1	11/13/2020 11:21:11 AM 56381
Toluene	ND	0.047	mg/Kg	1	11/13/2020 11:21:11 AM 56381
Ethylbenzene	ND	0.047	mg/Kg	1	11/13/2020 11:21:11 AM 56381
Xylenes, Total	ND	0.094	mg/Kg	1	11/13/2020 11:21:11 AM 56381
Surr: 1,2-Dichloroethane-d4	111	70-130	%Rec	1	11/13/2020 11:21:11 AM 56381
Surr: 4-Bromofluorobenzene	95.2	70-130	%Rec	1	11/13/2020 11:21:11 AM 56381
Surr: Dibromofluoromethane	118	70-130	%Rec	1	11/13/2020 11:21:11 AM 56381
Surr: Toluene-d8	97.8	70-130	%Rec	1	11/13/2020 11:21:11 AM 56381

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Client Sample ID: NH1 @ 2.5'

Collection Date: 11/9/2020

**Lab ID:** 2011574-012 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed B	Batch
EPA METHOD 300.0: ANIONS					Analyst: C	CAS
Chloride	ND	60	mg/Kg	20	11/14/2020 1:09:38 PM 5	56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: D	OJF
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/13/2020 11:49:32 AM 5	56381
Surr: BFB	102	70-130	%Rec	1	11/13/2020 11:49:32 AM 5	56381
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: B	3RM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/13/2020 8:49:07 AM 5	56385
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/13/2020 8:49:07 AM 5	56385
Surr: DNOP	63.0	30.4-154	%Rec	1	11/13/2020 8:49:07 AM 5	56385
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst: D	OJF
Benzene	ND	0.024	mg/Kg	1	11/13/2020 11:49:32 AM 5	56381
Toluene	ND	0.047	mg/Kg	1	11/13/2020 11:49:32 AM 5	56381
Ethylbenzene	ND	0.047	mg/Kg	1	11/13/2020 11:49:32 AM 5	56381
Xylenes, Total	ND	0.095	mg/Kg	1	11/13/2020 11:49:32 AM 5	56381
Surr: 1,2-Dichloroethane-d4	105	70-130	%Rec	1	11/13/2020 11:49:32 AM 5	56381
Surr: 4-Bromofluorobenzene	99.0	70-130	%Rec	1	11/13/2020 11:49:32 AM 5	56381
Surr: Dibromofluoromethane	106	70-130	%Rec	1	11/13/2020 11:49:32 AM 5	56381
Surr: Toluene-d8	95.1	70-130	%Rec	1	11/13/2020 11:49:32 AM 5	56381

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EH1 @ 2.5'

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-013 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/14/2020 1:21:58 PM	56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst:	DJF
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/13/2020 12:17:58 PM	1 56381
Surr: BFB	100	70-130	%Rec	1	11/13/2020 12:17:58 PM	1 56381
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/13/2020 9:13:06 AM	56385
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/13/2020 9:13:06 AM	56385
Surr: DNOP	39.4	30.4-154	%Rec	1	11/13/2020 9:13:06 AM	56385
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst:	DJF
Benzene	ND	0.025	mg/Kg	1	11/13/2020 12:17:58 PM	1 56381
Toluene	ND	0.050	mg/Kg	1	11/13/2020 12:17:58 PM	1 56381
Ethylbenzene	ND	0.050	mg/Kg	1	11/13/2020 12:17:58 PM	1 56381
Xylenes, Total	ND	0.10	mg/Kg	1	11/13/2020 12:17:58 PM	1 56381
Surr: 1,2-Dichloroethane-d4	103	70-130	%Rec	1	11/13/2020 12:17:58 PM	1 56381
Surr: 4-Bromofluorobenzene	98.4	70-130	%Rec	1	11/13/2020 12:17:58 PM	1 56381
Surr: Dibromofluoromethane	110	70-130	%Rec	1	11/13/2020 12:17:58 PM	1 56381
Surr: Toluene-d8	102	70-130	%Rec	1	11/13/2020 12:17:58 PM	1 56381

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EH2 @ 2.5'

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-014 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CAS
Chloride	ND	60	mg/Kg	20	11/14/2020 1:34:19 PM	56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst:	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/13/2020 12:46:25 PN	<i>I</i> 56381
Surr: BFB	101	70-130	%Rec	1	11/13/2020 12:46:25 PM	<i>l</i> 56381
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/13/2020 9:37:03 AM	56385
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/13/2020 9:37:03 AM	56385
Surr: DNOP	50.5	30.4-154	%Rec	1	11/13/2020 9:37:03 AM	56385
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>	Г				Analyst:	DJF
Benzene	ND	0.024	mg/Kg	1	11/13/2020 12:46:25 PN	<i>I</i> 56381
Toluene	ND	0.049	mg/Kg	1	11/13/2020 12:46:25 PM	<i>I</i> 56381
Ethylbenzene	ND	0.049	mg/Kg	1	11/13/2020 12:46:25 PN	<i>l</i> 56381
Xylenes, Total	ND	0.098	mg/Kg	1	11/13/2020 12:46:25 PN	<i>l</i> 56381
Surr: 1,2-Dichloroethane-d4	108	70-130	%Rec	1	11/13/2020 12:46:25 PN	<i>l</i> 56381
Surr: 4-Bromofluorobenzene	95.4	70-130	%Rec	1	11/13/2020 12:46:25 PM	1 56381
Surr: Dibromofluoromethane	107	70-130	%Rec	1	11/13/2020 12:46:25 PM	1 56381
Surr: Toluene-d8	102	70-130	%Rec	1	11/13/2020 12:46:25 PN	<i>l</i> 56381

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WH1 @ 2.5'

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-015 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	63	60	mg/Kg	20	11/14/2020 2:11:21 PM 56440
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/13/2020 1:14:55 PM 5638
Surr: BFB	104	70-130	%Rec	1	11/13/2020 1:14:55 PM 5638
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/13/2020 10:00:58 AM 5638
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/13/2020 10:00:58 AM 5638
Surr: DNOP	37.8	30.4-154	%Rec	1	11/13/2020 10:00:58 AM 5638
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst: <b>DJF</b>
Benzene	ND	0.024	mg/Kg	1	11/13/2020 1:14:55 PM 5638
Toluene	ND	0.049	mg/Kg	1	11/13/2020 1:14:55 PM 5638
Ethylbenzene	ND	0.049	mg/Kg	1	11/13/2020 1:14:55 PM 5638
Xylenes, Total	ND	0.098	mg/Kg	1	11/13/2020 1:14:55 PM 5638
Surr: 1,2-Dichloroethane-d4	109	70-130	%Rec	1	11/13/2020 1:14:55 PM 5638
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	11/13/2020 1:14:55 PM 5638
Surr: Dibromofluoromethane	111	70-130	%Rec	1	11/13/2020 1:14:55 PM 5638
Surr: Toluene-d8	102	70-130	%Rec	1	11/13/2020 1:14:55 PM 5638

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/17/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WH2 @ 2.5'

Project: CWMS Release

Collection Date: 11/9/2020

**Lab ID:** 2011574-016 **Matrix:** SOIL **Received Date:** 11/11/2020 8:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	CAS
Chloride	ND	60		mg/Kg	20	11/14/2020 2:23:41 PM	56440
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	DJF
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/13/2020 1:43:33 PM	56381
Surr: BFB	102	70-130		%Rec	1	11/13/2020 1:43:33 PM	56381
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/13/2020 10:24:49 AM	1 56385
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/13/2020 10:24:49 AM	1 56385
Surr: DNOP	29.6	30.4-154	S	%Rec	1	11/13/2020 10:24:49 AM	1 56385
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst:	DJF
Benzene	ND	0.023		mg/Kg	1	11/13/2020 1:43:33 PM	56381
Toluene	ND	0.046		mg/Kg	1	11/13/2020 1:43:33 PM	56381
Ethylbenzene	ND	0.046		mg/Kg	1	11/13/2020 1:43:33 PM	56381
Xylenes, Total	ND	0.092		mg/Kg	1	11/13/2020 1:43:33 PM	56381
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	11/13/2020 1:43:33 PM	56381
Surr: 4-Bromofluorobenzene	99.8	70-130		%Rec	1	11/13/2020 1:43:33 PM	56381
Surr: Dibromofluoromethane	111	70-130		%Rec	1	11/13/2020 1:43:33 PM	56381
Surr: Toluene-d8	97.3	70-130		%Rec	1	11/13/2020 1:43:33 PM	56381

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011574** 

17-Nov-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-56440 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 56440 RunNo: 73376

Prep Date: 11/14/2020 Analysis Date: 11/14/2020 SeqNo: 2583230 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56440 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56440 RunNo: 73376

Prep Date: 11/14/2020 Analysis Date: 11/14/2020 SeqNo: 2583240 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 94.3 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#: 2011574 17-Nov-20

**Client:** Mewbourne Oil Company

**Project: CWMS** Release

Sample ID: MB-56364 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 56364 RunNo: 73311

Prep Date: 11/11/2020 Analysis Date: 11/12/2020 SeqNo: 2580072 Units: %Rec

SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result LowLimit HighLimit Qual

Surr: DNOP 11 10.00 107 30.4 154

Sample ID: LCS-56364 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

RunNo: 73311 Client ID: LCSS Batch ID: 56364

Prep Date: 11/11/2020 Analysis Date: 11/12/2020 SeqNo: 2580073 Units: %Rec

SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual

Surr: DNOP 5.2 5.000 104 30.4

Sample ID: MB-56379 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 56379 RunNo: 73311 Prep Date: 11/11/2020 Analysis Date: 11/12/2020 SeqNo: 2580174 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Diesel Range Organics (DRO) ND 10

Motor Oil Range Organics (MRO) ND 50

Surr: DNOP 12 10.00 125 30.4 154

Sample ID: LCS-56379 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Batch ID: 56379 Client ID: LCSS RunNo: 73311 Prep Date: 11/11/2020 Analysis Date: 11/12/2020 SeqNo: 2580184 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 49 10 0 70 50.00 98.3 130

Surr: DNOP 5.3 5.000 106 30.4 154

Sample ID: 2011574-007AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: TT4 @ Surface Batch ID: 56385 RunNo: 73324

Prep Date: 11/11/2020 Analysis Date: 11/13/2020 SeqNo: 2580666 Units: mg/Kg

SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual Diesel Range Organics (DRO) 89 9.7 48.69 33.96 112 15 184

Surr: DNOP 13 14.61 90.1 30.4 154

Sample ID: 2011574-007AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: TT4 @ Surface Batch ID: 56385 RunNo: 73324

Prep Date: 11/11/2020 Analysis Date: 11/13/2020 SeqNo: 2580667 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Diesel Range Organics (DRO) 9.8 48.88 33.96 44.7 15 184 45.4 23.9

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

2011574 17-Nov-20

WO#:

**Client:** Mewbourne Oil Company

**Project: CWMS** Release

Sample ID: 2011574-007AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: TT4 @ Surface Batch ID: 56385 RunNo: 73324

Prep Date: 11/11/2020 Analysis Date: 11/13/2020 SeqNo: 2580667 Units: mg/Kg

SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result LowLimit HighLimit Qual Surr: DNOP 14 14.66 95.6 30.4 154 n Λ

TestCode: EPA Method 8015M/D: Diesel Range Organics

Sample ID: LCS-56385

Client ID: LCSS Batch ID: 56385 RunNo: 73324

SampType: LCS

Prep Date: 11/11/2020 Analysis Date: 11/13/2020 SeqNo: 2580726 Units: mg/Kg

%REC %RPD **RPDLimit** Analyte Result PQL SPK value SPK Ref Val LowLimit HighLimit Qual

Diesel Range Organics (DRO) 46 10 50.00 92.4 70 130 Surr: DNOP 3.3 5.000 66.5 30.4 154

Sample ID: MB-56385 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 56385 RunNo: 73324

Prep Date: 11/11/2020 Analysis Date: 11/13/2020 SeqNo: 2580730 Units: mq/Kq

Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

ND 10 Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) ND 50

Surr: DNOP 9.0 10.00 90.4 30.4 154

Sample ID: MB-56424 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 56424 RunNo: 73324

Prep Date: 11/13/2020 Analysis Date: 11/14/2020 SeqNo: 2582778 Units: %Rec

SPK value SPK Ref Val %REC %RPD **RPDLimit** Result PQL LowLimit HighLimit Qual Surr: DNOP 0 10.00 30.4 154 S n

Sample ID: LCS-56424 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 56424 RunNo: 73324

Analysis Date: 11/14/2020 SeqNo: 2582780 Prep Date: 11/13/2020 Units: %Rec

%RPD %REC **RPDLimit** Analyte Result SPK value SPK Ref Val LowLimit HighLimit Qual

Surr: DNOP 0 5.000 30.4 154 S

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011574** 

17-Nov-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-56381 SampType: MBLK TestCode: EPA Method 8260B: Volatiles Short List Client ID: PBS Batch ID: 56381 RunNo: 73317 Prep Date: 11/11/2020 Analysis Date: 11/13/2020 SeqNo: 2580507 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte Result Qual Benzene ND 0.025 Toluene ND 0.050 ND 0.050 Ethylbenzene Xylenes, Total ND 0.10 70 Surr: 1,2-Dichloroethane-d4 0.53 0.5000 107 130 Surr: 4-Bromofluorobenzene 0.50 0.5000 99.3 70 130 Surr: Dibromofluoromethane 0.52 0.5000 104 70 130 Surr: Toluene-d8 0.51 0.5000 102 70 130

Sample ID: Ics-56381 SampType: LCS4 TestCode: EPA Method 8260B: Volatiles Short List Client ID: **BatchQC** Batch ID: 56381 RunNo: 73317 Prep Date: 11/11/2020 Analysis Date: 11/13/2020 SeqNo: 2580521 Units: mg/Kg SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result PQL LowLimit Qual 1.0 0.025 1.000 0 101 80 120 Benzene 0 Toluene 1.0 0.050 1.000 102 80 120 Ethylbenzene 1.1 0.050 1.000 0 107 80 120 Xylenes, Total 3.3 0.10 3.000 0 110 80 120 0.53 0.5000 107 70 130 Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene 0.48 0.5000 96.8 70 130 Surr: Dibromofluoromethane 0.51 102 70 130 0.5000 Surr: Toluene-d8 0.49 0.5000 98.5 70 130

Sample ID: 2011574-008ams	SampType: MS4 TestCode: EPA Me						8260B: Volat	iles Short	List	
Client ID: TT4 @ 7'	Batch	n ID: <b>56</b> 3	381	R	RunNo: <b>7</b> 3	3317				
Prep Date: 11/11/2020	Analysis D	ate: 11	/13/2020	SeqNo: <b>2580538</b>			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.023	0.9381	0	110	71.1	115			
Toluene	1.1	0.047	0.9381	0	117	79.6	132			
Ethylbenzene	1.1	0.047	0.9381	0	119	83.8	134			
Xylenes, Total	3.6	0.094	2.814	0	127	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.48		0.4690		103	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.4690		96.5	70	130			
Surr: Dibromofluoromethane	0.50		0.4690		106	70	130			
Surr: Toluene-d8	0.47		0.4690		100	70	130			

#### Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011574** *17-Nov-20* 

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: 2011574-008amsd	Tes										
Client ID: TT4 @ 7'	Batch	h ID: <b>56</b> 3	381	R							
Prep Date: 11/11/2020	Analysis Date: 11/13/2020		5	SeqNo: 2	580543	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.024	0.9690	0	110	71.1	115	0	20		
Toluene	1.1	0.048	0.9690	0	114	79.6	132	0	20		
Ethylbenzene	1.1	0.048	0.9690	0	114	83.8	134	0	20		
Xylenes, Total	3.5	0.097	2.907	0	121	82.4	132	0	20		
Surr: 1,2-Dichloroethane-d4	0.53		0.4845		109	70	130	0	0		
Surr: 4-Bromofluorobenzene	0.47		0.4845		96.9	70	130	0	0		
Surr: Dibromofluoromethane	0.52		0.4845		107	70	130	0	0		
Surr: Toluene-d8	0.49		0.4845		101	70	130	0	0		
Sample ID: mb-56378 SampType: MBLK			TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PRS Batch ID: 56378				F	RunNo: 73322						

Sample ID: mb-56378 SampType: MBLK					TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: PBS Batch ID: 56378			F	RunNo: <b>7</b> :	3322							
Analysis Date: 11/12/2020		S	SeqNo: 2	580606	Units: mg/K							
Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
ND	0.025											
ND	0.050											
ND	0.050											
ND	0.10											
0.48		0.5000		96.7	70	130						
0.51		0.5000		101	70	130						
0.52		0.5000		104	70	130						
0.47		0.5000		94.1	70	130						
	Result  ND  ND  ND  ND  ND  ND  ND  O.48  0.51  0.52	Batch ID: 563 Analysis Date: 11 Result PQL  ND 0.025 ND 0.050 ND 0.050 ND 0.10 0.48 0.51 0.52	Batch ID: 56378  Analysis Date: 11/12/2020  Result PQL SPK value  ND 0.050  ND 0.050  ND 0.10  0.48 0.5000  0.51 0.5000  0.52 0.5000	Batch ID: 56378 Result PQL SPK value SPK Ref Val  ND 0.025 ND 0.050 ND 0.050 ND 0.10  0.48 0.5000 0.51 0.5000 0.52 0.5000	Batch ID: 56378       RunNo: 73         Analysis Date:       11/12/2020       SeqNo: 25         Result       PQL       SPK value       SPK Ref Val       %REC         ND       0.025       Who is a sequence of the color o	Batch ID: 56378       RunNo: 73322         Analysis Date: 11/12/2020       SeqNo: 2580606         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit         ND       0.050       ND       0.550         ND       0.10       96.7       70         0.48       0.5000       96.7       70         0.51       0.5000       101       70         0.52       0.5000       101       70	Batch ID: 56378       RunNo: 73322         Analysis Date: 1/1/2/2020       S∈qNo: 2580606       Units: mg/K         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit         ND       0.025       HighLimit       0.000       HighLimit       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000 <t< td=""><td>Batch ID: 56378       ReunNo: 73322         Analysis Date: 1/12/2020       SeqNo: 2580606       Units: mg/ky         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD         ND       0.025       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4<td>Batch ID: 56378       RunNo: 73322         Analysis Date: 11/12/2020       SeqNo: 2580606       Units: mg/Kg         Result       PQL       SPK value SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit         ND       0.025       FRANCE       FRANCE</td></td></t<>	Batch ID: 56378       ReunNo: 73322         Analysis Date: 1/12/2020       SeqNo: 2580606       Units: mg/ky         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD         ND       0.025       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4 <td>Batch ID: 56378       RunNo: 73322         Analysis Date: 11/12/2020       SeqNo: 2580606       Units: mg/Kg         Result       PQL       SPK value SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit         ND       0.025       FRANCE       FRANCE</td>	Batch ID: 56378       RunNo: 73322         Analysis Date: 11/12/2020       SeqNo: 2580606       Units: mg/Kg         Result       PQL       SPK value SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit         ND       0.025       FRANCE       FRANCE			

Sample ID: Ics-56378	TestCode: EPA Method 8260B: Volatiles Short List									
Client ID: BatchQC	Batcl	378	RunNo: <b>73322</b>							
Prep Date: 11/11/2020	Analysis D	)ate: 11	/12/2020	S	SeqNo: 2	580607 Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.3	80	120			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.9	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		100	70	130			
Surr: Toluene-d8	0.47		0.5000		93.5	70	130			

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011574** 

17-Nov-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

rroject:	CWMS F	tereuse											
Sample ID:	lcs-56381	SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range											
Client ID:	LCSS	Batch	n ID: <b>56</b>	381	RunNo: <b>73317</b>								
Prep Date:	11/11/2020	Analysis D	ate: 11	/12/2020	8	SeqNo: 2580574		Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e Organics (GRO)	22	5.0	25.00	0	88.7	70	130					
Surr: BFB		520		500.0		104	70	130					
Sample ID: 2011574-007ams SampType: MS TestCode: EPA Method 8015D Mod: Gasoline Range													
Client ID:	TT4 @ Surface	Batch	Batch ID: 56381 RunNo:				73317						
Prep Date:	11/11/2020	Analysis D	ate: 11	/13/2020	5	SeqNo: 2	580576	Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e Organics (GRO)	29	4.7	23.58	6.844	93.3	49.2	122					
Surr: BFB		470		471.7		101	70	130					
Sample ID:	2011574-007amsc	<b>I</b> SampT	уре: <b>М</b> \$	SD	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID:	TT4 @ Surface	Batch	1D: <b>56</b>	381	RunNo: 73317								
Prep Date:	11/11/2020	Analysis D	ate: 11	/13/2020	SeqNo: <b>2580577</b>			Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e Organics (GRO)	35	4.8	23.97	6.844	116	49.2	122	18.6	20			
Surr: BFB		510		479.4		106	70	130	0	0			
Sample ID:	mb-56381	SampT	ype: <b>ME</b>	BLK	Tes	tCode: EI	PA Method	8015D Mod:	Gasoline	Range			
Client ID:	PBS	Batch	1D: <b>56</b>	381	F	RunNo: <b>7</b> :	3317						
Prep Date:	11/11/2020	Analysis D	ate: <b>1</b> 1	/13/2020	8	SeqNo: 2	580581	Units: mg/k	(g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e Organics (GRO)	ND	5.0										
Surr: BFB		520		500.0		104	70	130					
Sample ID:	mb-56378	SampT	ype: <b>ME</b>	BLK	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range			
Client ID:	PBS	Batch ID: <b>56378</b>			RunNo: <b>73322</b>								
Prep Date:	11/11/2020	Analysis D	ate: 11	/12/2020	SeqNo: 2580707 Units: mg/Kg								
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e Organics (GRO)	ND	5.0					-					
Surr: BFB		510		500.0		101	70	130					

#### Qualifiers:

Analyte

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

Sample ID: Ics-56378

Prep Date: 11/11/2020

Client ID: LCSS

B Analyte detected in the associated Method Blank

RunNo: 73322

%REC

SeqNo: 2580722

LowLimit

TestCode: EPA Method 8015D Mod: Gasoline Range

Units: mg/Kg

HighLimit

%RPD

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

SPK value SPK Ref Val

Page 22 of 23

**RPDLimit** 

Qual

SampType: LCS

Result

Batch ID: 56378

Analysis Date: 11/12/2020

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011574** 

17-Nov-20

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: Ics-56378 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 56378 RunNo: 73322

Prep Date: 11/11/2020 Analysis Date: 11/12/2020 SeqNo: 2580722 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Gasoline Range Organics (GRO)
 20
 5.0
 25.00
 0
 81.4
 70
 130

 Surr: BFB
 500
 500.0
 100
 70
 130

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 23 of 23



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

## Sample Log-In Check List

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

Client Name:	Mewbourne O	il Company	Work Order Nu	ımber: 201	1574			RcptNo: 1
Description Down			44/44/2020 0 50	00.414		Llan	是少)	
Received By:	Juan Rojas		11/11/2020 8:50	:00 AM		100	E	
Completed By:	Emily Mocho	)	11/11/2020 9:27	:15 AM				
Reviewed By:	Cre		Willer					
Chain of Cu	stody							
1. Is Chain of 0	Custody complete	e?		Yes	~	No		Not Present
2. How was the	e sample delivere	ed?		Cou	ırier			
Log In								
	mpt made to coo	I the samples?		Vac	~	No		NA 🗆
o. Was an atte	imperinade to coo	r tric sampics:		163		110		101
4. Were all san	nples received at	a temperature	of >0° C to 6.0°C	Yes	~	No		NA 🗆
5 Sample/c\ir	n proper containe	r(n)2		Yes	~	No		
o. Sample(s) ii	i proper containe	((3) :		res		140		
6. Sufficient sa	mple volume for i	indicated test(s	3)?	Yes	~	No		
	(except VOA and			Yes	V	No		
	ative added to bo	The state of the state of		Yes		No	V	NA 🗆
0. Пособной об			W 6 A O MOA O			No		NA 🗹
	least 1 vial with h			Yes				NA 💌
10. Were any sa	ample containers	received broke	en?	Yes		No	<b>V</b>	# of preserved
11 Dose paper	vork match bottle	labole?		Voc	V	No		bottles checked for pH:
	pancies on chain			165		140		(<2 or >12 unless noted)
	correctly identific		Custody?	Yes	V	No		Adjusted?
	at analyses were			Yes	V	No		1 1-
1 = 1	ding times able to			Yes	<b>V</b>	No		Checked by: 72 11/11/20
(If no, notify	customer for auth	norization.)						
Special Hand	lling (if appli	cable)						
15, Was client r	notified of all disc	repancies with	this order?	Yes		No		NA 🔽
Perso	n Notified:		Da	ate:			_	
By WI			Vi	The same of	fail	Phone	Fax	☐ In Person
Regar							1 , 2,,	
	Instructions:						_	
16. Additional r	The second of the							
17. Cooler Info		0	and lateral Court of		2015	C:	Do	
Cooler N		Condition S Good Ye	Seal Intact Seal No	o Seal D	Jate	Signed	ыу	
2		Good Ye						
3		Good Ye						
4		Good Ye						



3.7

Good

Hall Environmental Analysis Laboratory 1901 Hawkins NE Albuquerque, NVI 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

### Sample Log-In Check List

Client Name: Mewbourne Oil Company Work Order Number: 2011574 RcptNo: 1

Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By

-		of-Cu	stody Record	Turn-Around	Time: 500	m	HALL ENVIRONMEN				ENT	ΓΑΙ	L Acres					
Cilent.	Mewbo	urne Oil C	company	XStandar	d	Rush		100			ALY							
				Project Name	e:						w.halle							0,7
Mailing	Address	3:		CWMS Rele	200			10	n1 H	awkins						10		5
				Project #:	436		1			)5-345-3						10		7,
Phone a	<b>#</b> ·			13296				1	ei. ot	10-340-3	_	_		-345- west				
email o				Project Mana			Analysis Request											
	Package:			Lance Crenshaw			/ MRO)	=								1 1		1
☐ Stan	-		☐ Level 4 (Full Validation)					802										
Accredi	tation:	□ Az Co	ompliance	Sampler: Leonel Mojica				/ TMB's (8021)										1
□ NEL	AC	□ Other		On Ice:		□ No:	8	1								1 1		
□ EDD	(Type)			# of Coolers:														
				Cooler Lemp	(including CF).	e Check 11st	015	/ MTBE										
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2011574	TPH:8015D(GRO	BTEX /	Cl-									
11/9/20		Soil	TT1 @ Surface	Jar - 1	Ice/Cool	001	х	Х	х									
11/9/20		Soil	TT1 @ 11'	Jar - 1	Ice/Cool	002	х	х	х									
11/9/20		Soil	TT2 @ Surface	Јаг - 1	Ice/Cool	003	х	Х	х									
11/9/20		Soil	TT2 @ 6'	Jar - 1	Ice/Cool	004	х	Х	х									
11/9/20		Soil	TT3 @ Surface	Jar - 1	Ice/Cool	005	Х	х	х									
11/9/20		Soil	TT3 @ 6'	Jar - 1	Ice/Cool	006	х	Х	Х									
11/9/20		Soil	TT4 @ Surface	Jar - 1	Ice/Cool	007	Х	Х	Х									11/10
11/9/20		Soil	TT4 @ 7'	Jar - 1	Ice/Cool	008	X	X	Х									
11/9/20		Soil	TT5 @ Surface	Jar - 1	Ice/Cool	009	Х	Х	Х									
11/9/20		Soil	TT5 @ 3'	Jar - 1	Ice/Cool	010	х	х	х									
11/9/20		Soil	SH1 @ 2.5'	Jar - 1	Ice/Cool	011	X	х	х									
11/9/20		Soil	NH1 @ 2.5'	Jar - 1	Ice/Cool	012	Х	х	х									
Date: 1/1/0	Time:	Relinquish		Received by:	Via:	1 Date Time					ourne	.com a	ind					
Date:	Time:	Relinquish	ned by:	Received by:	Via:	Date Time						1 086						
410/20	1900		min	12	Tourier		this possibility. Any sub-contracted data will be clearly notated on the analytical report.						<u>``</u>					

			ustody Record	Turn-Around	Time: 5 Day	4	7				AL		EA		DO	A PA E PA	# E I	NTA		Kec
Client:	Mewbo	urne Oil (	Company	XStandar	d	Rush			E									TO		ervea
				Project Nam	ie:															by (
Mailing	Addres	S:		CWMS Rele	ase			www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109					CD							
				Project #:						05-34						5-4107				: 4/2
Phone	#:			13296	3			Analysis Request											2 × ×	
email o	r Fax#:			Project Mana	ager:		Ô							T		1	T			
QA/QC ☐ Stan	Package dard		☐ Level 4 (Full Validation)	Lance Crens	shaw		DRO / MRO)	/ TMB's (8021)												:43:51
Accredi	tation:	☐ Az Cc	ompliance	Sampler: Leonel Mojica				B's (												P.M
□ NEL		□ Other		On Ice:		□ No	000	Σ					Ш		1		- 1			
□ EDD	EDD (Type)			# of Coolers: Cooler Temp	C(including CF):	(Leck list	5D(GF				ÞΛ									
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2011574	TPH:8015D(GRO	BTEX / MTBE	능											
11/9/20		Soil	EH1 @ 2.5'	Jar - 1	Ice/Cool	013	х	Х	х											
11/9/20		Soil	EH2 @ 2.5'	Jar - 1	Ice/Cool	014	х	X	Х											
11/9/20		Soil	WH1 @ 2.5'	Jar - 1	Ice/Cool	015	х		х	-								T		
11/9/20		Soil	WH2 @ 2.5'	Jar - 1	Ice/Cool	016	Х	Х	Х									丰		
													+	-			-	+	H	H
											-	+	-		-		-	+	$\blacksquare$	
							H				-	+	-		+		-	+	H	
									H		+	+	+				+	+-	+	H
Date: //_/0	Time:	Relinquish		Received by: Via: Date Time						mail r		s to:	rruni	nels@	mew	bourn	e.con	n and		1
Date:	Time: 1960	Relinquish	ed by:	Received by:	Via:	Date Time	ne						Page 74							



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

November 25, 2020

Lance Crenshaw
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241

TEL: (575) 393-5905

FAX

RE: CWMs Release OrderNo.: 2011887

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 14 sample(s) on 11/18/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Client Sample ID: EW 1

Date Reported: 11/25/2020

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company

**Project:** CWMs Release Collection Date: 11/10/2020

**Lab ID:** 2011887-001 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Ba	atch
EPA METHOD 300.0: ANIONS					Analyst: <b>VF</b>	Р
Chloride	ND	60	mg/Kg	20	11/23/2020 8:24:06 PM 56	6600
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: <b>m</b>	ıb
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/21/2020 11:58:42 AM 56	6575
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/21/2020 11:58:42 AM 56	6575
Surr: DNOP	110	30.4-154	%Rec	1	11/21/2020 11:58:42 AM 56	6575
EPA METHOD 8015D: GASOLINE RANGE					Analyst: N	SB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/23/2020 9:56:18 AM 56	6571
Surr: BFB	89.3	75.3-105	%Rec	1	11/23/2020 9:56:18 AM 56	6571
EPA METHOD 8021B: VOLATILES					Analyst: <b>N</b> \$	SB
Benzene	ND	0.025	mg/Kg	1	11/23/2020 9:56:18 AM 56	6571
Toluene	ND	0.050	mg/Kg	1	11/23/2020 9:56:18 AM 56	6571
Ethylbenzene	ND	0.050	mg/Kg	1	11/23/2020 9:56:18 AM 56	6571
Xylenes, Total	ND	0.099	mg/Kg	1	11/23/2020 9:56:18 AM 56	6571
Surr: 4-Bromofluorobenzene	99.1	80-120	%Rec	1	11/23/2020 9:56:18 AM 56	6571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW 2

**Project:** CWMs Release Collection Date: 11/10/2020

**Lab ID:** 2011887-002 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	1600	61	mg/Kg	20	11/23/2020 9:01:20 PM 56600
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/21/2020 12:27:47 PM 56575
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/21/2020 12:27:47 PM 56575
Surr: DNOP	102	30.4-154	%Rec	1	11/21/2020 12:27:47 PM 56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2020 11:06:36 AM 56571
Surr: BFB	91.5	75.3-105	%Rec	1	11/23/2020 11:06:36 AM 56571
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	11/23/2020 11:06:36 AM 56571
Toluene	ND	0.049	mg/Kg	1	11/23/2020 11:06:36 AM 56571
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2020 11:06:36 AM 56571
Xylenes, Total	ND	0.098	mg/Kg	1	11/23/2020 11:06:36 AM 56571
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	11/23/2020 11:06:36 AM 56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW 3

**Project:** CWMs Release Collection Date: 11/10/2020

**Lab ID:** 2011887-003 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	310	60	mg/Kg	20	11/23/2020 9:13:45 PM 56600
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/21/2020 12:37:31 PM 56575
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/21/2020 12:37:31 PM 56575
Surr: DNOP	94.6	30.4-154	%Rec	1	11/21/2020 12:37:31 PM 56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/23/2020 12:17:25 PM 56571
Surr: BFB	90.4	75.3-105	%Rec	1	11/23/2020 12:17:25 PM 56571
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.025	mg/Kg	1	11/23/2020 12:17:25 PM 56571
Toluene	ND	0.050	mg/Kg	1	11/23/2020 12:17:25 PM 56571
Ethylbenzene	ND	0.050	mg/Kg	1	11/23/2020 12:17:25 PM 56571
Xylenes, Total	ND	0.10	mg/Kg	1	11/23/2020 12:17:25 PM 56571
Surr: 4-Bromofluorobenzene	99.0	80-120	%Rec	1	11/23/2020 12:17:25 PM 56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: EW 5

**Project:** CWMs Release Collection Date: 11/10/2020

**Lab ID:** 2011887-004 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	71	59	mg/Kg	20	11/23/2020 9:26:09 PM 56600
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/21/2020 12:47:18 PM 56575
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/21/2020 12:47:18 PM 56575
Surr: DNOP	102	30.4-154	%Rec	1	11/21/2020 12:47:18 PM 56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2020 12:40:53 PM 56571
Surr: BFB	90.6	75.3-105	%Rec	1	11/23/2020 12:40:53 PM 56571
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.025	mg/Kg	1	11/23/2020 12:40:53 PM 56571
Toluene	ND	0.049	mg/Kg	1	11/23/2020 12:40:53 PM 56571
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2020 12:40:53 PM 56571
Xylenes, Total	ND	0.099	mg/Kg	1	11/23/2020 12:40:53 PM 56571
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	11/23/2020 12:40:53 PM 56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Client Sample ID: EW 6** 

Date Reported: 11/25/2020

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company

**Project:** CWMs Release Collection Date: 11/10/2020

**Lab ID:** 2011887-005 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	11/23/2020 9:38:34 PM 56600
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/21/2020 12:57:07 PM 56575
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/21/2020 12:57:07 PM 56575
Surr: DNOP	102	30.4-154	%Rec	1	11/21/2020 12:57:07 PM 56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/23/2020 1:04:24 PM 56571
Surr: BFB	89.8	75.3-105	%Rec	1	11/23/2020 1:04:24 PM 56571
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.025	mg/Kg	1	11/23/2020 1:04:24 PM 56571
Toluene	ND	0.050	mg/Kg	1	11/23/2020 1:04:24 PM 56571
Ethylbenzene	ND	0.050	mg/Kg	1	11/23/2020 1:04:24 PM 56571
Xylenes, Total	ND	0.10	mg/Kg	1	11/23/2020 1:04:24 PM 56571
Surr: 4-Bromofluorobenzene	98.2	80-120	%Rec	1	11/23/2020 1:04:24 PM 56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: EW 7

**Project:** CWMs Release Collection Date: 11/10/2020

**Lab ID:** 2011887-006 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	11/23/2020 9:50:58 PM	56600
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: mb
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/21/2020 1:06:58 PM	56575
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/21/2020 1:06:58 PM	56575
Surr: DNOP	110	30.4-154	%Rec	1	11/21/2020 1:06:58 PM	56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/23/2020 1:28:05 PM	56571
Surr: BFB	90.4	75.3-105	%Rec	1	11/23/2020 1:28:05 PM	56571
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	11/23/2020 1:28:05 PM	56571
Toluene	ND	0.050	mg/Kg	1	11/23/2020 1:28:05 PM	56571
Ethylbenzene	ND	0.050	mg/Kg	1	11/23/2020 1:28:05 PM	56571
Xylenes, Total	ND	0.10	mg/Kg	1	11/23/2020 1:28:05 PM	56571
Surr: 4-Bromofluorobenzene	99.0	80-120	%Rec	1	11/23/2020 1:28:05 PM	56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: EW 9

**Project:** CWMs Release Collection Date: 11/10/2020

**Lab ID:** 2011887-007 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	84	59	mg/Kg	20	11/23/2020 10:28:11 PM 56600
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/21/2020 1:16:58 PM 56575
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/21/2020 1:16:58 PM 56575
Surr: DNOP	99.9	30.4-154	%Rec	1	11/21/2020 1:16:58 PM 56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2020 1:51:47 PM 56571
Surr: BFB	90.8	75.3-105	%Rec	1	11/23/2020 1:51:47 PM 56571
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.025	mg/Kg	1	11/23/2020 1:51:47 PM 56571
Toluene	ND	0.049	mg/Kg	1	11/23/2020 1:51:47 PM 56571
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2020 1:51:47 PM 56571
Xylenes, Total	ND	0.098	mg/Kg	1	11/23/2020 1:51:47 PM 56571
Surr: 4-Bromofluorobenzene	99.2	80-120	%Rec	1	11/23/2020 1:51:47 PM 56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: EW4 E

 Project:
 CWMs Release
 Collection Date: 11/11/2020

 Lab ID:
 2011887-008
 Matrix: SOIL
 Received Date: 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	11/23/2020 10:40:35 PM 56600
EPA METHOD 8015M/D: DIESEL RANGE OR	RGANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/21/2020 1:26:58 PM 56575
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/21/2020 1:26:58 PM 56575
Surr: DNOP	96.4	30.4-154	%Rec	1	11/21/2020 1:26:58 PM 56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2020 2:15:27 PM 56571
Surr: BFB	89.4	75.3-105	%Rec	1	11/23/2020 2:15:27 PM 56571
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	11/23/2020 2:15:27 PM 56571
Toluene	ND	0.049	mg/Kg	1	11/23/2020 2:15:27 PM 56571
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2020 2:15:27 PM 56571
Xylenes, Total	ND	0.097	mg/Kg	1	11/23/2020 2:15:27 PM 56571
Surr: 4-Bromofluorobenzene	97.0	80-120	%Rec	1	11/23/2020 2:15:27 PM 56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: EW8 B

**Project:** CWMs Release Collection Date: 11/11/2020

**Lab ID:** 2011887-009 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	180	60	mg/Kg	20	11/24/2020 2:36:55 PM	56623
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: mb
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/21/2020 1:36:59 PM	56575
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/21/2020 1:36:59 PM	56575
Surr: DNOP	77.0	30.4-154	%Rec	1	11/21/2020 1:36:59 PM	56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2020 2:38:50 PM	56571
Surr: BFB	90.1	75.3-105	%Rec	1	11/23/2020 2:38:50 PM	56571
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	11/23/2020 2:38:50 PM	56571
Toluene	ND	0.049	mg/Kg	1	11/23/2020 2:38:50 PM	56571
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2020 2:38:50 PM	56571
Xylenes, Total	ND	0.099	mg/Kg	1	11/23/2020 2:38:50 PM	56571
Surr: 4-Bromofluorobenzene	98.4	80-120	%Rec	1	11/23/2020 2:38:50 PM	56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SW 1 C

Project: CWMs Release

Collection Date: 11/12/2020

**Lab ID:** 2011887-010 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	60	mg/Kg	20	11/24/2020 2:49:20 PM	56623
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	mb
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/21/2020 1:47:00 PM	56575
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/21/2020 1:47:00 PM	56575
Surr: DNOP	81.3	30.4-154	%Rec	1	11/21/2020 1:47:00 PM	56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2020 3:02:09 PM	56571
Surr: BFB	95.3	75.3-105	%Rec	1	11/23/2020 3:02:09 PM	56571
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	11/23/2020 3:02:09 PM	56571
Toluene	ND	0.049	mg/Kg	1	11/23/2020 3:02:09 PM	56571
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2020 3:02:09 PM	56571
Xylenes, Total	ND	0.099	mg/Kg	1	11/23/2020 3:02:09 PM	56571
Surr: 4-Bromofluorobenzene	104	80-120	%Rec	1	11/23/2020 3:02:09 PM	56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: SW 2

**Project:** CWMs Release Collection Date: 11/16/2020

**Lab ID:** 2011887-011 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	60	mg/Kg	20	11/24/2020 3:26:35 PM	56623
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	mb
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/21/2020 1:57:00 PM	56575
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/21/2020 1:57:00 PM	56575
Surr: DNOP	90.9	30.4-154	%Rec	1	11/21/2020 1:57:00 PM	56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/23/2020 4:12:17 PM	56571
Surr: BFB	93.6	75.3-105	%Rec	1	11/23/2020 4:12:17 PM	56571
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	11/23/2020 4:12:17 PM	56571
Toluene	ND	0.050	mg/Kg	1	11/23/2020 4:12:17 PM	56571
Ethylbenzene	ND	0.050	mg/Kg	1	11/23/2020 4:12:17 PM	56571
Xylenes, Total	ND	0.10	mg/Kg	1	11/23/2020 4:12:17 PM	56571
Surr: 4-Bromofluorobenzene	102	80-120	%Rec	1	11/23/2020 4:12:17 PM	56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: WW 3

**Project:** CWMs Release Collection Date: 11/16/2020

**Lab ID:** 2011887-012 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result RL		Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	61	mg/Kg	20	11/24/2020 3:38:59 PM	56623
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	mb
Diesel Range Organics (DRO)	11	9.4	mg/Kg	1	11/21/2020 2:07:01 PM	56575
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/21/2020 2:07:01 PM	56575
Surr: DNOP	94.9	30.4-154	%Rec	1	11/21/2020 2:07:01 PM	56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2020 4:35:39 PM	56571
Surr: BFB	92.1	75.3-105	%Rec	1	11/23/2020 4:35:39 PM	56571
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	11/23/2020 4:35:39 PM	56571
Toluene	ND	0.049	mg/Kg	1	11/23/2020 4:35:39 PM	56571
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2020 4:35:39 PM	56571
Xylenes, Total	ND	0.099	mg/Kg	1	11/23/2020 4:35:39 PM	56571
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	11/23/2020 4:35:39 PM	56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW 1 B

Project: CWMs Release

Collection Date: 11/16/2020

**Lab ID:** 2011887-013 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	60	mg/Kg	20	11/24/2020 3:51:25 PM	56623
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	mb
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/21/2020 2:17:02 PM	56575
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	11/21/2020 2:17:02 PM	56575
Surr: DNOP	95.0	30.4-154	%Rec	1	11/21/2020 2:17:02 PM	56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2020 4:58:57 PM	56571
Surr: BFB	93.0	75.3-105	%Rec	1	11/23/2020 4:58:57 PM	56571
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	11/23/2020 4:58:57 PM	56571
Toluene	ND	0.049	mg/Kg	1	11/23/2020 4:58:57 PM	56571
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2020 4:58:57 PM	56571
Xylenes, Total	ND	0.098	mg/Kg	1	11/23/2020 4:58:57 PM	56571
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	11/23/2020 4:58:57 PM	56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 11/25/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW 2 B

Project: CWMs Release

Collection Date: 11/16/2020

**Lab ID:** 2011887-014 **Matrix:** SOIL **Received Date:** 11/18/2020 8:00:00 AM

Analyses	Result	Result RL Qual Unit			Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: MRA
Chloride	76	60	mg/Kg	20	11/24/2020 4:03:49 PM	56623
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: mb
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/21/2020 2:27:03 PM	56575
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/21/2020 2:27:03 PM	56575
Surr: DNOP	89.7	30.4-154	%Rec	1	11/21/2020 2:27:03 PM	56575
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/23/2020 5:22:16 PM	56571
Surr: BFB	92.8	75.3-105	%Rec	1	11/23/2020 5:22:16 PM	56571
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	11/23/2020 5:22:16 PM	56571
Toluene	ND	0.049	mg/Kg	1	11/23/2020 5:22:16 PM	56571
Ethylbenzene	ND	0.049	mg/Kg	1	11/23/2020 5:22:16 PM	56571
Xylenes, Total	ND	0.099	mg/Kg	1	11/23/2020 5:22:16 PM	56571
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	11/23/2020 5:22:16 PM	56571

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

25-Nov-20

2011887

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMs Release

Sample ID: MB-56600 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 56600 RunNo: 73569

Prep Date: 11/23/2020 Analysis Date: 11/23/2020 SeqNo: 2591794 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56600 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56600 RunNo: 73569

Prep Date: 11/23/2020 Analysis Date: 11/23/2020 SeqNo: 2591795 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 93.6 90 110

Sample ID: MB-56623 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 56623 RunNo: 73590

Prep Date: 11/24/2020 Analysis Date: 11/24/2020 SeqNo: 2593314 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56623 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56623 RunNo: 73590

Prep Date: 11/24/2020 Analysis Date: 11/24/2020 SeqNo: 2593315 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 15 1.5 15.00 0 96.8 90 110

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### **OC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011887 25-Nov-20** 

**Client:** Mewbourne Oil Company

**Project:** CWMs Release

Sample ID: MB-56575 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 56575 RunNo: 73544 Prep Date: 11/20/2020 Analysis Date: 11/21/2020 SeqNo: 2590644 Units: mg/Kg SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result PQL LowLimit Qual Diesel Range Organics (DRO) NΩ 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 11 10.00 110 30.4 154

Sample ID: LCS-56575 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 56575 RunNo: 73544 Prep Date: 11/20/2020 Analysis Date: 11/21/2020 SeqNo: 2590647 Units: mg/Kg Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 59 10 70 130 50.00 118 Surr: DNOP 5.0 5.000 101 30.4 154

Sample ID: 2011887-001AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: EW 1 Batch ID: 56575 RunNo: 73544 Prep Date: 11/20/2020 Analysis Date: 11/21/2020 SeqNo: 2590649 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 42 9.6 47.85 3.941 80.2 15 184 Surr: DNOP 2.7 4.785 56.2 30.4 154

Sample ID: 2011887-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: EW 1 Batch ID: 56575 RunNo: 73544 Prep Date: 11/20/2020 Analysis Date: 11/21/2020 SeqNo: 2590651 Units: mg/Kg %RPD Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit **RPDLimit** Qual Analyte Diesel Range Organics (DRO) 46 9.9 49.36 3.941 84.9 15 184 8.08 23.9

4.936

3.4

#### Qualifiers:

Surr: DNOP

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

68.8

30.4

154

0

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 16 of 18

0

#### **OC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011887 25-Nov-20** 

**Client:** Mewbourne Oil Company

**Project:** CWMs Release

Sample ID: mb-56571 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: **PBS** Batch ID: **56571** RunNo: **73565** 

Prep Date: 11/20/2020 Analysis Date: 11/23/2020 SeqNo: 2591453 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 890 1000 88.8 75.3 105

Sample ID: Ics-56571 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 56571 RunNo: 73565

Prep Date: 11/20/2020 Analysis Date: 11/23/2020 SeqNo: 2591454 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 5.0 25.00 O 92.5 72.5 106

Surr: BFB 990 1000 99.2 75.3 105

Sample ID: 2011887-002ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range

Client ID: **EW 2** Batch ID: **56571** RunNo: **73565** 

Prep Date: 11/20/2020 Analysis Date: 11/23/2020 SeqNo: 2591457 Units: mg/Kg

Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte LowLimit Qual Gasoline Range Organics (GRO) 21 5.0 24.90 0 83.6 61.3 114

Surr: BFB 1000 996.0 101 75.3 105

Sample ID: 2011887-002amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: **EW 2** Batch ID: **56571** RunNo: **73565** 

Prep Date: 11/20/2020 Analysis Date: 11/23/2020 SeqNo: 2591458 Units: mg/Kg

SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Result PQL LowLimit Qual Gasoline Range Organics (GRO) 22 5.0 24.78 88.2 61.3 114 4.81 20 Surr: BFB 990 991.1 99.9 75.3 105 0 0

#### Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 17 of 18

#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011887** 

25-Nov-20

**Client:** Mewbourne Oil Company

**Project:** CWMs Release

Sample ID: mb-56571 SampType: MBLK TestCode: EPA Method 8021B: Volatiles

Client ID: **PBS** Batch ID: **56571** RunNo: **73565** 

Prep Date: 11/20/2020 Analysis Date: 11/23/2020 SeqNo: 2591494 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Benzene ND 0.025

 Toluene
 ND
 0.050

 Ethylbenzene
 ND
 0.050

 Xylenes, Total
 ND
 0.10

 Surr: 4-Bromofluorobenzene
 0.98
 1.000
 98.2
 80
 120

Sample ID: LCS-56571 SampType: LCS TestCode: EPA Method 8021B: Volatiles

Client ID: LCSS Batch ID: 56571 RunNo: 73565

Prep Date: 11/20/2020 Analysis Date: 11/23/2020 SeqNo: 2591495 Units: mg/Kg

Prep Date: 11/20/2020	Analysis L	Jate: <b>1</b> 1	1/23/2020	٤	seqino: 2	591495	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	0.90	0.025	1.000	0	90.2	80	120							
Toluene	0.94	0.050	1.000	0	93.5	80	120							
Ethylbenzene	0.94	0.050	1.000	0	93.8	80	120							
Xylenes, Total	2.8	0.10	3.000	0	93.5	80	120							
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120							

Sample ID: 2011887-001ams SampType: MS TestCode: EPA Method 8021B: Volatiles

Client ID: **EW 1** Batch ID: **56571** RunNo: **73565** 

Prep Date: 11/20/2020	Analysis [	Date: <b>1</b> 1	1/23/2020	S	SeqNo: 2	591497	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.89	0.025	0.9990	0	89.3	76.3	120					
Toluene	0.94	0.050	0.9990	0	94.1	78.5	120					
Ethylbenzene	0.95	0.050	0.9990	0	94.9	78.1	124					
Xylenes, Total	2.9	0.10	2.997	0.01645	94.6	79.3	125					
Surr: 4-Bromofluorobenzene	0.98		0.9990		98.3	80	120					

Sample ID: 2011887-001amsd SampType: MSD TestCode: EPA Method 8021B: Volatiles

Client ID: **EW 1** Batch ID: **56571** RunNo: **73565** 

Prep Date: 11/20/2020	Analysis D	Date: <b>1</b> 1	/23/2020	S	SeqNo: 2	591498	(g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.84	0.024	0.9775	0	85.9	76.3	120	6.01	20				
Toluene	0.90	0.049	0.9775	0	92.3	78.5	120	4.08	20				
Ethylbenzene	0.91	0.049	0.9775	0	93.4	78.1	124	3.80	20				
Xylenes, Total	2.8	0.098	2.933	0.01645	93.5	79.3	125	3.35	20				
Surr: 4-Bromofluorobenzene	0.97		0.9775		98.8	80	120	0	0				

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

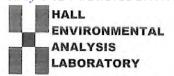
E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 18 of 18



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

# Sample Log-In Check List

Client Name:	Mewbourne	Oil Company	Work	Order Num	ber: 201	1887			RcptNo	: 1
Received By:	Emily Mod	cho	11/18/2	020 8:00:00	) AM					
Completed By:	Emily Mod	cho	11/18/2	020 9:06:03	3 AM					
Reviewed By:		18.20								
Chain of Cust	tody									
1. Is Chain of Cu	istody compl	lete?			Yes	~	No		Not Present	
2. How was the s	sample deliv	ered?			Cou	rier				
Log In										
<ol><li>Was an attem</li></ol>	pt made to c	ool the sample	s?		Yes	<b>V</b>	No		NA 🗆	
4. Were all samp	les received	at a temperati	re of >0° C1	o 6.0°C	Yes	<b>V</b>	No		NA 🗆	
5. Sample(s) in p	roper contai	ner(s)?			Yes	V	No			
6. Sufficient samp	ple volume fo	or indicated tes	it(s)?		Yes	<b>V</b>	No [			
7. Are samples (e	except VOA	and ONG) prop	erly preserve	d?	Yes	<b>V</b>	No [			
8. Was preservat	ive added to	bottles?			Yes		No [	<b>V</b>	NA 🗆	
9. Received at lea	ast 1 vial with	n headspace <	1/4" for AQ V	OA?	Yes		No [		NA 🗹	
10, Were any sam	ple containe	ers received bro	ken?		Yes		No	<b>V</b>	# of	
11.Does paperwoi (Note discrepa					Yes	V	No (		# of preserved bottles checked for pH: (<2 o	r >12 unless noted)
2. Are matrices of			of Custody?		Yes	<b>V</b>	No [		Adjusted?	
3. Is it clear what	analyses we	ere requested?			Yes	V	No [			
4. Were all holdin (If no, notify cu					Yes	<b>V</b>	No [		Checked by:	24 11/18/50
Special Handli	ng (if app	licable)								
15. Was client not	ified of all di	screpancies w	th this order?		Yes		No		NA 🗹	
Person I	Notified:			Date	:					
By Whoi	m:			Via:	eMa	ail 🗌	Phone	Fax	☐ In Person	
Regardin	ng:									
Client In	structions:									
16. Additional ren	narks:									
17. <u>Cooler Inforr</u> Cooler No	mation Temp °C	Condition	Seal Intact	Seal No	Seal D	ate	Signed B	lv.		
1	0.5		Yes	Joan No	Jean D	alc	Signed D	y		
2	1.3		Yes	_						

Release	
l to	
Imaging:	
8/23/2021	
11:37:48 A	
M	

	hain	-of-C	ustody Record	Turn-Around	Time:	o hold to		8o2 ■	1,8							Sid.	The state of				Receive
Client:	Mew	bour	ne	☐ Standard	d □ Rusi e:	la rust					N	AL	Y	SIS	5 L	A	ВО			AL ORY	
Mailing	Addres	s:		Project #:	Release				01 F el. 50		ins I	NE -	- All	ouqu	erqu		om IM 87 -4107				D: 4/28/26
Phone	#:			13296					ei. 50	JJ-3	+0-0		_			uesi			101		212
email o	r Fax#:			Project Mana	ager: Lan	Ce Clansher	_	6					SO ₄								:43:
QA/QC	Package ndard		☐ Level 4 (Full Validation)	Joul	Lowry	ce Crensha u	TMB's (8021)	DRO / MRO)	PCB's		8270SIMS		PO4, S			Coliform (Present/Absent)					51 PM
Accred		☐ Az Co	ompliance	Sampler: On Ice:				~		14.1)	r 8270		NO ₂ ,		2	resen					
	(Type)			# of Coolers:		<u> </u>	38/	GRC	des/	d 50	10 0	Metals	NO ₃ ,		8	E F		П			
				Cooler Temp	(including CF): ()		MTB	15D(	estici	etho	y 83	Me	Br, N	(A)	emi-	olifor					
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	1.320=1.3 HEAL No. 2011887	BTEX/	TPH:8015D(GRO	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310 or	RCRA 8	Q, F, B	8260 (VOA)	8270 (Semi-VOA)	Total Co					
Wiolas		Soil	Ewi	1	Tel	001	X	X					X								
11/10/20		Soil	Ewa	1	Tec	002	V	V					V						1		
11/10/31		Soil	Ews	(	Ice	003	X	X					1						$\top$		T
11/10/20	D.	Soil	EW5	1	Iu	004	X	X					X					$\top$	$\top$	+	
11/10/20		Soil	EW6	1	Ice	005	X	X					V						$\top$		
1/20/20		Sil	EW7	- (	Ice	006	X	X					X								
11/20/20	>	Soil	EW9	(	Ice	007	X	X					X								Г
11/11/20		Soil	EW4 6	1	Ice	008	X	X					X		1						
1/11/20		Soil	EW8B	1	Ice	009	X	X					X					$\neg$			
11/12/20		Sil	SWIC		Iq	010	X	X					X								
11/16/20 11/16/20 Date:		Soil	SWZ	1	ICE	011	×	X					X			I					
11/16/20		Soil	WW3		ICC	0/2	X	X			11		A								
1/1/	1600	//	min	Received by: Via: Date Time F				Mo	s: vil	re	50	11	5	+	0	And	ely:	20	Ja Ja	300	Page
Date: Time: Relinguished by:			Received by:	Via: Urier	Date Time	Sei	al:	into	Rf	10	et	cc	he	nV	16	n- (	loc	11	BTE	95 of 5.	

thialyze for 300 h							For	80	21,	80	5								Rece
Client:	111	Not-Ci	rne	Turn-Around Time:  Standard Rush  Project Name:									SI	5 L	AE	NM 3OF			- 2
Mailing	Addres	s:		101.)11	s Ral	0000		40	04.11								00		: 4/2
				Project #:	S Rela	ease	1									M 871	09		28/2
<u> </u>	"			1320				16	el. 50	5-345	-397					-4107	-1		92
Phone				During	10	( )				- 16			ysis	Req	uest		-		# 3
email o				Project Manager: Lance Crenshaw Joel Lowsy			21)	80	S		0	SO ₄			ent				1 3
QA/QC □ Star	Package ndard	\$	☐ Level 4 (Full Validation)	Joel	hows	7	TMB's (8021)	DRO / MRO)	PCB's		8Z/USIMS	PO ₄ ,			Coliform (Present/Absent)				PM
Accred	itation:	□ Az Co	ompliance	Sampler:			MB	, PR	082	€ 5	22/	NO ₂ ,			eser				
□ NEL	_AC	□ Othe	r	On Ice:	☑ Yes	□ No	1_	8	8/8	8	5			8	(Pre				
	(Type)			# of Coolers:			MTBE	G.	cide	po g		8 8	2	ι×	E				
Date	Time	Matrix	Sample Name	Cooler Temp Container Type and #	Preservative Type	1-3 to -4.3		TPH:8015D(GRO	8081 Pesticides/8082	EDB (Method	PAHS by 8310	CINF, Br, NO ₃ ,	8260 (VOA)	8270 (Semi-VOA)	Total Colifc				
11/10/20		Soil	WWIB	(	ICE	em <del>oot</del> 013	X					X	1	_					
1/16/20		Soil	WWZB	ı	ICE	1118/00 002 014	X					X							
							14				1								
																	1		24 [1]
											1								
										-	+						4		
										4	+						4	Ш	
						11					+	1							
Date:	Time:	Relinquish	ned by:	Received his	Via:	Date Time	Por	nork			a I	- Late	101		Ļ				
				Received by: Via: Date Time R		Remarks: seal intact  Email results to ANalyze  Proceeding to 300 only  Procedence on hold by					20	Fe	Page						
Pa .			Received by: Via: Date Time		[			0 100	0 .	Local	P		300	No C	4		96		
11/17/20	11/17/20 1900 /			SW C	quirier	11/18/20 800			/	M	LE	1.50	nen	0.0	en	hol	di	or-TI	PA BT



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

December 08, 2020

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 TEL: (575) 393-5905

FAX:

RE: CWMS Release OrderNo.: 2011C97

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 22 sample(s) on 11/28/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **2011C97** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/8/2020

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/17/2020

Lab ID: 2011C97-001

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	JMT
Chloride	67	59	mg/Kg	20	11/30/2020 11:26:32 PM	Л 56715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst:	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/30/2020 5:28:53 AM	56681
Surr: BFB	92.9	70-130	%Rec	1	11/30/2020 5:28:53 AM	56681
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/30/2020 9:41:07 PM	56685
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/30/2020 9:41:07 PM	56685
Surr: DNOP	94.7	30.4-154	%Rec	1	11/30/2020 9:41:07 PM	56685
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	DJF
Benzene	ND	0.025	mg/Kg	1	11/30/2020 5:28:53 AM	56681
Toluene	ND	0.049	mg/Kg	1	11/30/2020 5:28:53 AM	56681
Ethylbenzene	ND	0.049	mg/Kg	1	11/30/2020 5:28:53 AM	56681
Xylenes, Total	ND	0.098	mg/Kg	1	11/30/2020 5:28:53 AM	56681
Surr: 1,2-Dichloroethane-d4	95.7	70-130	%Rec	1	11/30/2020 5:28:53 AM	56681
Surr: 4-Bromofluorobenzene	93.4	70-130	%Rec	1	11/30/2020 5:28:53 AM	56681
Surr: Dibromofluoromethane	113	70-130	%Rec	1	11/30/2020 5:28:53 AM	56681
Surr: Toluene-d8	88.9	70-130	%Rec	1	11/30/2020 5:28:53 AM	56681

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/8/2020

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/17/2020

Lab ID: 2011C97-002

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	JMT
Chloride	ND	60	mg/Kg	20	12/1/2020 12:28:35 AM	56715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst:	DJF
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/30/2020 5:55:48 AM	56681
Surr: BFB	91.2	70-130	%Rec	1	11/30/2020 5:55:48 AM	56681
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/30/2020 9:50:34 PM	56685
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/30/2020 9:50:34 PM	56685
Surr: DNOP	102	30.4-154	%Rec	1	11/30/2020 9:50:34 PM	56685
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst:	DJF
Benzene	ND	0.025	mg/Kg	1	11/30/2020 5:55:48 AM	56681
Toluene	ND	0.050	mg/Kg	1	11/30/2020 5:55:48 AM	56681
Ethylbenzene	ND	0.050	mg/Kg	1	11/30/2020 5:55:48 AM	56681
Xylenes, Total	ND	0.10	mg/Kg	1	11/30/2020 5:55:48 AM	56681
Surr: 1,2-Dichloroethane-d4	92.0	70-130	%Rec	1	11/30/2020 5:55:48 AM	56681
Surr: 4-Bromofluorobenzene	95.7	70-130	%Rec	1	11/30/2020 5:55:48 AM	56681
Surr: Dibromofluoromethane	112	70-130	%Rec	1	11/30/2020 5:55:48 AM	56681
Surr: Toluene-d8	89.0	70-130	%Rec	1	11/30/2020 5:55:48 AM	56681

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT:Mewbourne Oil CompanyClient Sample ID: EW 10Project:CWMS ReleaseCollection Date: 11/23/2020

**Lab ID:** 2011C97-003 **Matrix:** SOIL **Received Date:** 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	JMT
Chloride	99	60	mg/Kg	20	12/1/2020 1:05:48 AM	56715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/30/2020 6:22:42 AM	56681
Surr: BFB	95.1	70-130	%Rec	1	11/30/2020 6:22:42 AM	56681
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/30/2020 9:59:58 PM	56685
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/30/2020 9:59:58 PM	56685
Surr: DNOP	89.3	30.4-154	%Rec	1	11/30/2020 9:59:58 PM	56685
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst	DJF
Benzene	ND	0.025	mg/Kg	1	11/30/2020 6:22:42 AM	56681
Toluene	ND	0.050	mg/Kg	1	11/30/2020 6:22:42 AM	56681
Ethylbenzene	ND	0.050	mg/Kg	1	11/30/2020 6:22:42 AM	56681
Xylenes, Total	ND	0.10	mg/Kg	1	11/30/2020 6:22:42 AM	56681
Surr: 1,2-Dichloroethane-d4	94.4	70-130	%Rec	1	11/30/2020 6:22:42 AM	56681
Surr: 4-Bromofluorobenzene	98.0	70-130	%Rec	1	11/30/2020 6:22:42 AM	56681
Surr: Dibromofluoromethane	111	70-130	%Rec	1	11/30/2020 6:22:42 AM	56681
Surr: Toluene-d8	89.9	70-130	%Rec	1	11/30/2020 6:22:42 AM	56681

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2011C97** 

Date Reported: 12/8/2020

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 5 4'

Project:CWMS ReleaseCollection Date: 11/16/2020Lab ID:2011C97-004Matrix: SOILReceived Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	JMT
Chloride	230	60	mg/Kg	20	12/1/2020 1:18:13 AM	56715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst:	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/30/2020 6:50:12 AM	56681
Surr: BFB	94.3	70-130	%Rec	1	11/30/2020 6:50:12 AM	56681
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/30/2020 10:09:19 PM	1 56685
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/30/2020 10:09:19 PM	1 56685
Surr: DNOP	85.2	30.4-154	%Rec	1	11/30/2020 10:09:19 PM	1 56685
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>	•				Analyst:	DJF
Benzene	ND	0.025	mg/Kg	1	11/30/2020 6:50:12 AM	56681
Toluene	ND	0.049	mg/Kg	1	11/30/2020 6:50:12 AM	56681
Ethylbenzene	ND	0.049	mg/Kg	1	11/30/2020 6:50:12 AM	56681
Xylenes, Total	ND	0.098	mg/Kg	1	11/30/2020 6:50:12 AM	56681
Surr: 1,2-Dichloroethane-d4	97.0	70-130	%Rec	1	11/30/2020 6:50:12 AM	56681
Surr: 4-Bromofluorobenzene	97.4	70-130	%Rec	1	11/30/2020 6:50:12 AM	56681
Surr: Dibromofluoromethane	112	70-130	%Rec	1	11/30/2020 6:50:12 AM	56681
Surr: Toluene-d8	92.6	70-130	%Rec	1	11/30/2020 6:50:12 AM	56681

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 8 4'

Project: CWMS Release

Collection Date: 11/16/2020

**Lab ID:** 2011C97-005 **Matrix:** SOIL **Received Date:** 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	ND	61	mg/Kg	20	12/1/2020 1:30:37 AM 56715
EPA METHOD 8015D MOD: GASOLINE RANG	<b>SE</b>				Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/29/2020 6:09:28 PM 56684
Surr: BFB	105	70-130	%Rec	1	11/29/2020 6:09:28 PM 56684
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: BRM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	11/30/2020 10:18:43 PM 56685
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/30/2020 10:18:43 PM 56685
Surr: DNOP	92.1	30.4-154	%Rec	1	11/30/2020 10:18:43 PM 56685
EPA METHOD 8260B: VOLATILES SHORT LI	ST				Analyst: <b>JMR</b>
Benzene	ND	0.025	mg/Kg	1	11/29/2020 6:09:28 PM 56684
Toluene	ND	0.050	mg/Kg	1	11/29/2020 6:09:28 PM 56684
Ethylbenzene	ND	0.050	mg/Kg	1	11/29/2020 6:09:28 PM 56684
Xylenes, Total	ND	0.099	mg/Kg	1	11/29/2020 6:09:28 PM 56684
Surr: 1,2-Dichloroethane-d4	102	70-130	%Rec	1	11/29/2020 6:09:28 PM 56684
Surr: 4-Bromofluorobenzene	98.3	70-130	%Rec	1	11/29/2020 6:09:28 PM 56684
Surr: Dibromofluoromethane	109	70-130	%Rec	1	11/29/2020 6:09:28 PM 56684
Surr: Toluene-d8	88.6	70-130	%Rec	1	11/29/2020 6:09:28 PM 56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2011C97** 

#### Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL9 4'

Project:CWMS ReleaseCollection Date: 11/16/2020Lab ID:2011C97-006Matrix: SOILReceived Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	ND	60	mg/Kg	20	12/1/2020 1:43:03 AM 56715
EPA METHOD 8015D MOD: GASOLINE RANG	Ε				Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/29/2020 7:34:45 PM 56684
Surr: BFB	103	70-130	%Rec	1	11/29/2020 7:34:45 PM 56684
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.0	mg/Kg	1	11/30/2020 10:28:02 PM 56685
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	11/30/2020 10:28:02 PM 56685
Surr: DNOP	116	30.4-154	%Rec	1	11/30/2020 10:28:02 PM 56685
EPA METHOD 8260B: VOLATILES SHORT LIS	ST .				Analyst: <b>JMR</b>
Benzene	ND	0.024	mg/Kg	1	11/29/2020 7:34:45 PM 56684
Toluene	ND	0.049	mg/Kg	1	11/29/2020 7:34:45 PM 56684
Ethylbenzene	ND	0.049	mg/Kg	1	11/29/2020 7:34:45 PM 56684
Xylenes, Total	ND	0.097	mg/Kg	1	11/29/2020 7:34:45 PM 56684
Surr: 1,2-Dichloroethane-d4	98.0	70-130	%Rec	1	11/29/2020 7:34:45 PM 56684
Surr: 4-Bromofluorobenzene	96.8	70-130	%Rec	1	11/29/2020 7:34:45 PM 56684
Surr: Dibromofluoromethane	104	70-130	%Rec	1	11/29/2020 7:34:45 PM 56684
Surr: Toluene-d8	88.5	70-130	%Rec	1	11/29/2020 7:34:45 PM 56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/16/2020

Lab ID: 2011C97-007

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed Ba	atch
EPA METHOD 300.0: ANIONS					Analyst: <b>Ji</b>	МТ
Chloride	ND	60	mg/Kg	20	12/1/2020 1:55:27 AM 56	6715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>Ji</b>	MR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/29/2020 9:00:01 PM 56	6684
Surr: BFB	109	70-130	%Rec	1	11/29/2020 9:00:01 PM 56	6684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: <b>B</b>	кМ
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	11/30/2020 10:37:17 PM 56	6685
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/30/2020 10:37:17 PM 56	6685
Surr: DNOP	88.5	30.4-154	%Rec	1	11/30/2020 10:37:17 PM 56	6685
EPA METHOD 8260B: VOLATILES SHORT LIST	Г				Analyst: <b>Ji</b>	MR
Benzene	ND	0.025	mg/Kg	1	11/29/2020 9:00:01 PM 56	6684
Toluene	ND	0.049	mg/Kg	1	11/29/2020 9:00:01 PM 56	6684
Ethylbenzene	ND	0.049	mg/Kg	1	11/29/2020 9:00:01 PM 56	6684
Xylenes, Total	ND	0.099	mg/Kg	1	11/29/2020 9:00:01 PM 56	6684
Surr: 1,2-Dichloroethane-d4	96.4	70-130	%Rec	1	11/29/2020 9:00:01 PM 56	6684
Surr: 4-Bromofluorobenzene	97.9	70-130	%Rec	1	11/29/2020 9:00:01 PM 56	6684
Surr: Dibromofluoromethane	103	70-130	%Rec	1	11/29/2020 9:00:01 PM 56	6684
Surr: Toluene-d8	91.2	70-130	%Rec	1	11/29/2020 9:00:01 PM 56	6684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL17 4'

Project: CWMS Release

Collection Date: 11/16/2020

**Lab ID:** 2011C97-008 **Matrix:** SOIL **Received Date:** 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	160	60	mg/Kg	20	12/1/2020 2:07:52 AM 56715
EPA METHOD 8015D MOD: GASOLINE RANG	iΕ				Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/29/2020 9:28:23 PM 56684
Surr: BFB	103	70-130	%Rec	1	11/29/2020 9:28:23 PM 56684
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/30/2020 10:46:34 PM 56685
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/30/2020 10:46:34 PM 56685
Surr: DNOP	81.4	30.4-154	%Rec	1	11/30/2020 10:46:34 PM 56685
<b>EPA METHOD 8260B: VOLATILES SHORT LIS</b>	ST .				Analyst: <b>JMR</b>
Benzene	ND	0.025	mg/Kg	1	11/29/2020 9:28:23 PM 56684
Toluene	ND	0.049	mg/Kg	1	11/29/2020 9:28:23 PM 56684
Ethylbenzene	ND	0.049	mg/Kg	1	11/29/2020 9:28:23 PM 56684
Xylenes, Total	ND	0.099	mg/Kg	1	11/29/2020 9:28:23 PM 56684
Surr: 1,2-Dichloroethane-d4	98.1	70-130	%Rec	1	11/29/2020 9:28:23 PM 56684
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/29/2020 9:28:23 PM 56684
Surr: Dibromofluoromethane	105	70-130	%Rec	1	11/29/2020 9:28:23 PM 56684
Surr: Toluene-d8	84.6	70-130	%Rec	1	11/29/2020 9:28:23 PM 56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/16/2020

Lab ID: 2011C97-009

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed B	atch
EPA METHOD 300.0: ANIONS					Analyst: <b>J</b> l	МТ
Chloride	140	60	mg/Kg	20	12/1/2020 2:20:16 AM 50	6715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>J</b> l	MR
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/29/2020 9:56:44 PM 56	6684
Surr: BFB	105	70-130	%Rec	1	11/29/2020 9:56:44 PM 5	6684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: <b>B</b>	3RM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/30/2020 10:55:49 PM 5	6685
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/30/2020 10:55:49 PM 50	6685
Surr: DNOP	88.5	30.4-154	%Rec	1	11/30/2020 10:55:49 PM 50	6685
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst: <b>J</b> l	MR
Benzene	ND	0.025	mg/Kg	1	11/29/2020 9:56:44 PM 5	6684
Toluene	ND	0.050	mg/Kg	1	11/29/2020 9:56:44 PM 50	6684
Ethylbenzene	ND	0.050	mg/Kg	1	11/29/2020 9:56:44 PM 50	6684
Xylenes, Total	ND	0.10	mg/Kg	1	11/29/2020 9:56:44 PM 50	6684
Surr: 1,2-Dichloroethane-d4	102	70-130	%Rec	1	11/29/2020 9:56:44 PM 50	6684
Surr: 4-Bromofluorobenzene	97.9	70-130	%Rec	1	11/29/2020 9:56:44 PM 50	6684
Surr: Dibromofluoromethane	105	70-130	%Rec	1	11/29/2020 9:56:44 PM 50	6684
Surr: Toluene-d8	92.3	70-130	%Rec	1	11/29/2020 9:56:44 PM 50	6684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT:Mewbourne Oil CompanyClient Sample ID: FL 22 4'Project:CWMS ReleaseCollection Date: 11/17/2020

**Lab ID:** 2011C97-010 **Matrix:** SOIL **Received Date:** 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch	h
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>	
Chloride	120	60	mg/Kg	20	12/1/2020 2:57:29 AM 56715	5
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>JMR</b>	
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/29/2020 10:25:04 PM 56684	4
Surr: BFB	103	70-130	%Rec	1	11/29/2020 10:25:04 PM 56684	4
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: BRM	j
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/30/2020 11:05:03 PM 56685	5
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/30/2020 11:05:03 PM 56685	5
Surr: DNOP	88.3	30.4-154	%Rec	1	11/30/2020 11:05:03 PM 56685	5
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst: <b>JMR</b>	
Benzene	ND	0.025	mg/Kg	1	11/29/2020 10:25:04 PM 56684	4
Toluene	ND	0.050	mg/Kg	1	11/29/2020 10:25:04 PM 56684	4
Ethylbenzene	ND	0.050	mg/Kg	1	11/29/2020 10:25:04 PM 56684	4
Xylenes, Total	ND	0.099	mg/Kg	1	11/29/2020 10:25:04 PM 56684	4
Surr: 1,2-Dichloroethane-d4	99.7	70-130	%Rec	1	11/29/2020 10:25:04 PM 56684	4
Surr: 4-Bromofluorobenzene	98.9	70-130	%Rec	1	11/29/2020 10:25:04 PM 56684	4
Surr: Dibromofluoromethane	104	70-130	%Rec	1	11/29/2020 10:25:04 PM 56684	4
Surr: Toluene-d8	85.7	70-130	%Rec	1	11/29/2020 10:25:04 PM 56684	4

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/17/2020

Lab ID: 2011C97-011

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed Ba	atch
EPA METHOD 300.0: ANIONS					Analyst: <b>JN</b>	ИT
Chloride	69	61	mg/Kg	20	12/1/2020 3:09:54 AM 56	3715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>JN</b>	۷IR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/29/2020 10:53:22 PM 56	3684
Surr: BFB	106	70-130	%Rec	1	11/29/2020 10:53:22 PM 56	3684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: <b>BF</b>	RM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	11/30/2020 11:14:22 PM 56	3685
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/30/2020 11:14:22 PM 56	3685
Surr: DNOP	82.5	30.4-154	%Rec	1	11/30/2020 11:14:22 PM 56	3685
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst: <b>JN</b>	۷IR
Benzene	ND	0.024	mg/Kg	1	11/29/2020 10:53:22 PM 56	3684
Toluene	ND	0.049	mg/Kg	1	11/29/2020 10:53:22 PM 56	3684
Ethylbenzene	ND	0.049	mg/Kg	1	11/29/2020 10:53:22 PM 56	3684
Xylenes, Total	ND	0.097	mg/Kg	1	11/29/2020 10:53:22 PM 56	3684
Surr: 1,2-Dichloroethane-d4	98.4	70-130	%Rec	1	11/29/2020 10:53:22 PM 56	3684
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	11/29/2020 10:53:22 PM 56	3684
Surr: Dibromofluoromethane	107	70-130	%Rec	1	11/29/2020 10:53:22 PM 56	3684
Surr: Toluene-d8	88.4	70-130	%Rec	1	11/29/2020 10:53:22 PM 56	3684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 27 4'

Project: CWMS Release

Collection Date: 11/17/2020

**Lab ID:** 2011C97-012 **Matrix:** SOIL **Received Date:** 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	170	60	mg/Kg	20	12/1/2020 3:22:19 AM 56715
EPA METHOD 8015D MOD: GASOLINE RANGE	į				Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/29/2020 11:21:40 PM 56684
Surr: BFB	104	70-130	%Rec	1	11/29/2020 11:21:40 PM 56684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/30/2020 11:23:40 PM 56685
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/30/2020 11:23:40 PM 56685
Surr: DNOP	88.1	30.4-154	%Rec	1	11/30/2020 11:23:40 PM 56685
EPA METHOD 8260B: VOLATILES SHORT LIST	Γ				Analyst: <b>JMR</b>
Benzene	ND	0.025	mg/Kg	1	11/29/2020 11:21:40 PM 56684
Toluene	ND	0.050	mg/Kg	1	11/29/2020 11:21:40 PM 56684
Ethylbenzene	ND	0.050	mg/Kg	1	11/29/2020 11:21:40 PM 56684
Xylenes, Total	ND	0.10	mg/Kg	1	11/29/2020 11:21:40 PM 56684
Surr: 1,2-Dichloroethane-d4	97.1	70-130	%Rec	1	11/29/2020 11:21:40 PM 56684
Surr: 4-Bromofluorobenzene	97.7	70-130	%Rec	1	11/29/2020 11:21:40 PM 56684
Surr: Dibromofluoromethane	102	70-130	%Rec	1	11/29/2020 11:21:40 PM 56684
Surr: Toluene-d8	88.6	70-130	%Rec	1	11/29/2020 11:21:40 PM 56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2011C97** 

Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/17/2020

Lab ID: 2011C97-013

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	63	61	mg/Kg	20	12/1/2020 3:34:44 AM	56715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/30/2020 2:10:59 AM	56684
Surr: BFB	104	70-130	%Rec	1	11/30/2020 2:10:59 AM	56684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/30/2020 11:33:00 PM	M 56685
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/30/2020 11:33:00 PM	M 56685
Surr: DNOP	92.6	30.4-154	%Rec	1	11/30/2020 11:33:00 PM	M 56685
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst	: JMR
Benzene	ND	0.025	mg/Kg	1	11/30/2020 2:10:59 AM	56684
Toluene	ND	0.049	mg/Kg	1	11/30/2020 2:10:59 AM	56684
Ethylbenzene	ND	0.049	mg/Kg	1	11/30/2020 2:10:59 AM	56684
Xylenes, Total	ND	0.098	mg/Kg	1	11/30/2020 2:10:59 AM	56684
Surr: 1,2-Dichloroethane-d4	100	70-130	%Rec	1	11/30/2020 2:10:59 AM	56684
Surr: 4-Bromofluorobenzene	97.6	70-130	%Rec	1	11/30/2020 2:10:59 AM	56684
Surr: Dibromofluoromethane	104	70-130	%Rec	1	11/30/2020 2:10:59 AM	56684
Surr: Toluene-d8	86.6	70-130	%Rec	1	11/30/2020 2:10:59 AM	56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/25/2020

Lab ID: 2011C97-014

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed B	atch
EPA METHOD 300.0: ANIONS					Analyst: <b>J</b> l	МТ
Chloride	110	60	mg/Kg	20	12/1/2020 3:47:08 AM 50	6715
EPA METHOD 8015D MOD: GASOLINE RANGE	<u> </u>				Analyst: <b>J</b> l	MR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/30/2020 2:39:08 AM 50	6684
Surr: BFB	104	70-130	%Rec	1	11/30/2020 2:39:08 AM 50	6684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst: <b>B</b>	BRM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/30/2020 11:42:22 PM 5	6685
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/30/2020 11:42:22 PM 50	6685
Surr: DNOP	97.0	30.4-154	%Rec	1	11/30/2020 11:42:22 PM 50	6685
EPA METHOD 8260B: VOLATILES SHORT LIST	Г				Analyst: <b>J</b> l	MR
Benzene	ND	0.025	mg/Kg	1	11/30/2020 2:39:08 AM 5	6684
Toluene	ND	0.049	mg/Kg	1	11/30/2020 2:39:08 AM 50	6684
Ethylbenzene	ND	0.049	mg/Kg	1	11/30/2020 2:39:08 AM 50	6684
Xylenes, Total	ND	0.099	mg/Kg	1	11/30/2020 2:39:08 AM 50	6684
Surr: 1,2-Dichloroethane-d4	94.1	70-130	%Rec	1	11/30/2020 2:39:08 AM 50	6684
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/30/2020 2:39:08 AM 50	6684
Surr: Dibromofluoromethane	101	70-130	%Rec	1	11/30/2020 2:39:08 AM 50	6684
Surr: Toluene-d8	85.6	70-130	%Rec	1	11/30/2020 2:39:08 AM 50	6684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/25/2020

Lab ID: 2011C97-015

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>JMT</b>
Chloride	ND	61	mg/Kg	20	12/1/2020 3:59:33 AM 56715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/30/2020 3:07:17 AM 56684
Surr: BFB	106	70-130	%Rec	1	11/30/2020 3:07:17 AM 56684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/30/2020 11:51:44 PM 56685
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/30/2020 11:51:44 PM 56685
Surr: DNOP	93.7	30.4-154	%Rec	1	11/30/2020 11:51:44 PM 56685
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst: <b>JMR</b>
Benzene	ND	0.024	mg/Kg	1	11/30/2020 3:07:17 AM 56684
Toluene	ND	0.049	mg/Kg	1	11/30/2020 3:07:17 AM 56684
Ethylbenzene	ND	0.049	mg/Kg	1	11/30/2020 3:07:17 AM 56684
Xylenes, Total	ND	0.098	mg/Kg	1	11/30/2020 3:07:17 AM 56684
Surr: 1,2-Dichloroethane-d4	100	70-130	%Rec	1	11/30/2020 3:07:17 AM 56684
Surr: 4-Bromofluorobenzene	99.8	70-130	%Rec	1	11/30/2020 3:07:17 AM 56684
Surr: Dibromofluoromethane	106	70-130	%Rec	1	11/30/2020 3:07:17 AM 56684
Surr: Toluene-d8	88.8	70-130	%Rec	1	11/30/2020 3:07:17 AM 56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

#### Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL57 4'

Project:CWMS ReleaseCollection Date: 11/25/2020Lab ID:2011C97-016Matrix: SOILReceived Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	: JMT
Chloride	80	59	mg/Kg	20	12/1/2020 4:11:57 AM	56715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	JMR
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/30/2020 3:35:25 AM	56684
Surr: BFB	109	70-130	%Rec	1	11/30/2020 3:35:25 AM	56684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	12/1/2020 12:01:07 AM	56685
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/1/2020 12:01:07 AM	56685
Surr: DNOP	96.0	30.4-154	%Rec	1	12/1/2020 12:01:07 AM	56685
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst:	JMR
Benzene	ND	0.025	mg/Kg	1	11/30/2020 3:35:25 AM	56684
Toluene	ND	0.050	mg/Kg	1	11/30/2020 3:35:25 AM	56684
Ethylbenzene	ND	0.050	mg/Kg	1	11/30/2020 3:35:25 AM	56684
Xylenes, Total	ND	0.10	mg/Kg	1	11/30/2020 3:35:25 AM	56684
Surr: 1,2-Dichloroethane-d4	102	70-130	%Rec	1	11/30/2020 3:35:25 AM	56684
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	11/30/2020 3:35:25 AM	56684
Surr: Dibromofluoromethane	106	70-130	%Rec	1	11/30/2020 3:35:25 AM	56684
Surr: Toluene-d8	87.1	70-130	%Rec	1	11/30/2020 3:35:25 AM	56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2011C97** 

Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/25/2020

Lab ID: 2011C97-017

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	JMT
Chloride	180	60	mg/Kg	20	12/1/2020 4:24:21 AM	56715
EPA METHOD 8015D MOD: GASOLINE RANGE	į				Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/30/2020 4:03:32 AM	56684
Surr: BFB	103	70-130	%Rec	1	11/30/2020 4:03:32 AM	56684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/1/2020 12:10:35 AM	56685
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/1/2020 12:10:35 AM	56685
Surr: DNOP	96.6	30.4-154	%Rec	1	12/1/2020 12:10:35 AM	56685
EPA METHOD 8260B: VOLATILES SHORT LIST	Г				Analyst	JMR
Benzene	ND	0.025	mg/Kg	1	11/30/2020 4:03:32 AM	56684
Toluene	ND	0.049	mg/Kg	1	11/30/2020 4:03:32 AM	56684
Ethylbenzene	ND	0.049	mg/Kg	1	11/30/2020 4:03:32 AM	56684
Xylenes, Total	ND	0.099	mg/Kg	1	11/30/2020 4:03:32 AM	56684
Surr: 1,2-Dichloroethane-d4	94.1	70-130	%Rec	1	11/30/2020 4:03:32 AM	56684
Surr: 4-Bromofluorobenzene	99.2	70-130	%Rec	1	11/30/2020 4:03:32 AM	56684
Surr: Dibromofluoromethane	104	70-130	%Rec	1	11/30/2020 4:03:32 AM	56684
Surr: Toluene-d8	85.7	70-130	%Rec	1	11/30/2020 4:03:32 AM	56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/25/2020

Lab ID: 2011C97-018

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	JMT
Chloride	310	61	mg/Kg	20	12/1/2020 4:36:46 AM	56715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst:	JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/30/2020 4:31:38 AM	56684
Surr: BFB	108	70-130	%Rec	1	11/30/2020 4:31:38 AM	56684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/1/2020 12:20:09 AM	56685
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/1/2020 12:20:09 AM	56685
Surr: DNOP	92.0	30.4-154	%Rec	1	12/1/2020 12:20:09 AM	56685
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst:	JMR
Benzene	ND	0.025	mg/Kg	1	11/30/2020 4:31:38 AM	56684
Toluene	ND	0.049	mg/Kg	1	11/30/2020 4:31:38 AM	56684
Ethylbenzene	ND	0.049	mg/Kg	1	11/30/2020 4:31:38 AM	56684
Xylenes, Total	ND	0.099	mg/Kg	1	11/30/2020 4:31:38 AM	56684
Surr: 1,2-Dichloroethane-d4	96.1	70-130	%Rec	1	11/30/2020 4:31:38 AM	56684
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	11/30/2020 4:31:38 AM	56684
Surr: Dibromofluoromethane	101	70-130	%Rec	1	11/30/2020 4:31:38 AM	56684
Surr: Toluene-d8	86.2	70-130	%Rec	1	11/30/2020 4:31:38 AM	56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 71 4'

Project: CWMS Release

Collection Date: 11/25/2020

**Lab ID:** 2011C97-019 **Matrix:** SOIL **Received Date:** 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	JMT
Chloride	370	60	mg/Kg	20	12/1/2020 4:49:11 AM	56715
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/30/2020 4:59:45 AM	56684
Surr: BFB	104	70-130	%Rec	1	11/30/2020 4:59:45 AM	56684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/1/2020 12:29:45 AM	56685
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/1/2020 12:29:45 AM	56685
Surr: DNOP	96.5	30.4-154	%Rec	1	12/1/2020 12:29:45 AM	56685
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst:	JMR
Benzene	ND	0.025	mg/Kg	1	11/30/2020 4:59:45 AM	56684
Toluene	ND	0.049	mg/Kg	1	11/30/2020 4:59:45 AM	56684
Ethylbenzene	ND	0.049	mg/Kg	1	11/30/2020 4:59:45 AM	56684
Xylenes, Total	ND	0.098	mg/Kg	1	11/30/2020 4:59:45 AM	56684
Surr: 1,2-Dichloroethane-d4	100	70-130	%Rec	1	11/30/2020 4:59:45 AM	56684
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	11/30/2020 4:59:45 AM	56684
Surr: Dibromofluoromethane	102	70-130	%Rec	1	11/30/2020 4:59:45 AM	56684
Surr: Toluene-d8	86.0	70-130	%Rec	1	11/30/2020 4:59:45 AM	56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/25/2020

Lab ID: 2011C97-020

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	JMT
Chloride	210	60	mg/Kg	20	12/1/2020 5:26:24 AM	56715
EPA METHOD 8015D MOD: GASOLINE RANGE	į				Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/30/2020 5:27:51 AM	56684
Surr: BFB	103	70-130	%Rec	1	11/30/2020 5:27:51 AM	56684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	12/1/2020 1:10:25 PM	56713
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/1/2020 1:10:25 PM	56713
Surr: DNOP	109	30.4-154	%Rec	1	12/1/2020 1:10:25 PM	56713
EPA METHOD 8260B: VOLATILES SHORT LIST	Г				Analyst:	JMR
Benzene	ND	0.025	mg/Kg	1	11/30/2020 5:27:51 AM	56684
Toluene	ND	0.049	mg/Kg	1	11/30/2020 5:27:51 AM	56684
Ethylbenzene	ND	0.049	mg/Kg	1	11/30/2020 5:27:51 AM	56684
Xylenes, Total	ND	0.098	mg/Kg	1	11/30/2020 5:27:51 AM	56684
Surr: 1,2-Dichloroethane-d4	94.1	70-130	%Rec	1	11/30/2020 5:27:51 AM	56684
Surr: 4-Bromofluorobenzene	99.4	70-130	%Rec	1	11/30/2020 5:27:51 AM	56684
Surr: Dibromofluoromethane	100	70-130	%Rec	1	11/30/2020 5:27:51 AM	56684
Surr: Toluene-d8	86.2	70-130	%Rec	1	11/30/2020 5:27:51 AM	56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/25/2020

Lab ID: 2011C97-021

Matrix: SOIL

Received Date: 11/28/2020

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	CAS
Chloride	420	60	mg/Kg	20	12/2/2020 5:46:41 PM	56744
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	JMR
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/30/2020 5:55:57 AM	56684
Surr: BFB	103	70-130	%Rec	1	11/30/2020 5:55:57 AM	56684
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/1/2020 1:20:12 PM	56713
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/1/2020 1:20:12 PM	56713
Surr: DNOP	102	30.4-154	%Rec	1	12/1/2020 1:20:12 PM	56713
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>	Г				Analyst	JMR
Benzene	ND	0.025	mg/Kg	1	11/30/2020 5:55:57 AM	56684
Toluene	ND	0.050	mg/Kg	1	11/30/2020 5:55:57 AM	56684
Ethylbenzene	ND	0.050	mg/Kg	1	11/30/2020 5:55:57 AM	56684
Xylenes, Total	ND	0.099	mg/Kg	1	11/30/2020 5:55:57 AM	56684
Surr: 1,2-Dichloroethane-d4	93.8	70-130	%Rec	1	11/30/2020 5:55:57 AM	56684
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	11/30/2020 5:55:57 AM	56684
Surr: Dibromofluoromethane	102	70-130	%Rec	1	11/30/2020 5:55:57 AM	56684
Surr: Toluene-d8	86.7	70-130	%Rec	1	11/30/2020 5:55:57 AM	56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2011C97

Date Reported: 12/8/2020

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 11/25/2020

Lab ID: 2011C97-022

Matrix: SOIL

Received Date: 11/28/2020

Result **RL Oual Units DF** Date Analyzed **Batch Analyses EPA METHOD 300.0: ANIONS** Analyst: CAS Chloride 430 60 mg/Kg 20 12/2/2020 5:59:05 PM 56744 **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: JMR Gasoline Range Organics (GRO) ND 4.9 mg/Kg 11/30/2020 6:24:04 AM Surr: BFB 11/30/2020 6:24:04 AM 56684 103 70-130 %Rec 1 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: BRM Diesel Range Organics (DRO) ND 9.7 mg/Kg 12/1/2020 1:30:00 PM 56713 Motor Oil Range Organics (MRO) ND 12/1/2020 1:30:00 PM 56713 48 mg/Kg 1 Surr: DNOP 98.8 30.4-154 %Rec 12/1/2020 1:30:00 PM 56713 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: JMR ND 11/30/2020 6:24:04 AM 56684 Benzene 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 11/30/2020 6:24:04 AM 56684 Ethylbenzene ND 0.049 mg/Kg 1 11/30/2020 6:24:04 AM 56684 Xylenes, Total ND 0.099 mg/Kg 11/30/2020 6:24:04 AM 56684 Surr: 1,2-Dichloroethane-d4 94.2 70-130 %Rec 1 11/30/2020 6:24:04 AM 56684 Surr: 4-Bromofluorobenzene 70-130 99.8 %Rec 11/30/2020 6:24:04 AM 56684 Surr: Dibromofluoromethane 103 70-130 %Rec 1 11/30/2020 6:24:04 AM 56684 Surr: Toluene-d8 85.9 70-130 %Rec 11/30/2020 6:24:04 AM 56684

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011C97** *08-Dec-20* 

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-56715 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **56715** RunNo: **73668** 

Prep Date: 11/30/2020 Analysis Date: 11/30/2020 SeqNo: 2597369 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56715 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56715 RunNo: 73668

Prep Date: 11/30/2020 Analysis Date: 11/30/2020 SeqNo: 2597370 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 93.0 90 110

Sample ID: MB-56744 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 56744 RunNo: 73718

Prep Date: 12/2/2020 Analysis Date: 12/2/2020 SeqNo: 2599163 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56744 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56744 RunNo: 73718

Prep Date: 12/2/2020 Analysis Date: 12/2/2020 SeqNo: 2599164 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 94.3 90 110

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

12

10.00

WO#: **2011C97** *08-Dec-20* 

Client: Mewbourne Oil Company

**Project:** CWMS Release

Project: CWMS	Release									
Sample ID: LCS-56685	SampType: <b>LC</b>	s	Tes	tCode: <b>El</b>	PA Method	8015M/D: Di	esel Rang	e Organics		
Client ID: LCSS	Batch ID: 56	685	R	RunNo: <b>7</b> :	3679					
Prep Date: 11/28/2020	Analysis Date: 11	1/30/2020	S	SeqNo: 2	596913	Units: mg/k	(g			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	51 10	50.00	0	103	70	130				
Surr: DNOP	4.7	5.000		93.6	30.4	154				
Sample ID: MB-56685	SampType: <b>ME</b>	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics		
Client ID: PBS	Batch ID: 56	685	F	RunNo: <b>7</b> :	3679					
Prep Date: 11/28/2020	Analysis Date: 11	1/30/2020	S	SeqNo: 2	596917	Units: mg/k	(g			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND 10									
Motor Oil Range Organics (MRO)	ND 50									
Surr: DNOP	9.2	10.00		91.9	30.4	154				
Sample ID: LCS-56713	SampType: <b>LC</b>	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics		
Client ID: LCSS	Batch ID: 56	713	R	RunNo: <b>7</b> :	3695					
Prep Date: 11/30/2020	Analysis Date: 12	2/1/2020	S	SeqNo: 2	598000	Units: mg/k	(g			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	61 10	50.00	0	121	70	130				
Surr: DNOP	6.5	5.000		130	30.4	154				
Sample ID: <b>MB-56713</b>	SampType: <b>ME</b>	BLK	Tes	tCode: <b>El</b>	PA Method	8015M/D: Di	esel Rang	e Organics		
Client ID: PBS	Batch ID: 56	713	R	RunNo: <b>7</b> :	3695					
Prep Date: 11/30/2020	Analysis Date: 12	2/1/2020	S	SeqNo: 2	598002	Units: mg/k	(g			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND 10									
Motor Oil Range Organics (MRO)	ND 50									

#### Qualifiers:

Surr: DNOP

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

120

30.4

154

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **2011C97** *08-Dec-20* 

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: <b>mb-56681</b>	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	nod 8260B: Volatiles Short List			
Client ID: PBS	Batcl	n ID: <b>56</b> 0	681	F	3649					
Prep Date: 11/28/2020	28/2020 Analysis Date: 11/29/202			SeqNo: <b>2595647</b>			Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.1	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.48		0.5000		95.1	70	130			

Sample ID: Ics-56681	Samp1	Гуре: <b>LC</b>	S4	TestCode: EPA Method 8260B: Volatiles Short List							
Client ID: BatchQC	Batc	h ID: <b>56</b> 0	681	F	RunNo: <b>7</b> :	3649					
Prep Date: 11/28/2020	Analysis [	Date: <b>1</b> 1	/29/2020	S	SeqNo: 2	595649	Units: mg/k	ίg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.025	1.000	0	108	80	120				
Toluene	1.0	0.050	1.000	0	99.7	80	120				
Ethylbenzene	0.97	0.050	1.000	0	97.1	80	120				
Xylenes, Total	2.8	0.10	3.000	0	95.0	80	120				
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.5	70	130				
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.0	70	130				
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130				
Surr: Toluene-d8	0.47		0.5000		93.3	70	130				

Sample ID: Ics-56684	SampT	ype: LC	S4	iles Short	List					
Client ID: BatchQC	Batch	n ID: <b>566</b>	584	R	RunNo: <b>7</b> 3	3660				
Prep Date: 11/28/2020	Analysis D	ate: 11	/29/2020	S	596237	Units: mg/K	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	119	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130			
Surr: Toluene-d8	0.44		0.5000		87.4	70	130			

#### Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011C97** 

08-Dec-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-56684 SampType: MBLK TestCode: EPA Method 8260B: Volatiles Short List Client ID: PBS Batch ID: 56684 RunNo: 73660 Prep Date: 11/28/2020 Analysis Date: 11/29/2020 SeqNo: 2596238 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Benzene ND 0.025 Toluene ND 0.050 ND 0.050 Ethylbenzene Xylenes, Total ND 0.10 70 130 Surr: 1,2-Dichloroethane-d4 0.52 0.5000 105 Surr: 4-Bromofluorobenzene 0.49 0.5000 97.5 70 130 Surr: Dibromofluoromethane 0.51 0.5000 103 70 130 Surr: Toluene-d8 0.44 0.5000 87.8 70 130

Sample ID: 2011c97-005ams	Sampī	Гуре: <b>МЅ</b>	34	Tes	tCode: El	PA Method	8260B: Volat	iles Short	List	
Client ID: FL 8 4'	Batc	h ID: <b>56</b> 6	684	F	RunNo: <b>7</b> :	3660				
Prep Date: 11/28/2020	Analysis [	)ate: <b>11</b>	1/29/2020	S	SeqNo: 2	596249	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.024	0.9785	0	132	71.1	115			S
Toluene	1.1	0.049	0.9785	0	114	79.6	132			
Ethylbenzene	1.1	0.049	0.9785	0	116	83.8	134			
Xylenes, Total	3.5	0.098	2.935	0	120	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.49		0.4892		99.9	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.4892		98.3	70	130			
Surr: Dibromofluoromethane	0.52		0.4892		107	70	130			
Surr: Toluene-d8	0.43		0.4892		88.4	70	130			

Sample ID: 2011c97-005amsd	Sample ID: 2011c97-005amsd SampType: MSD4 TestCode: EPA Method 8260B: Volatiles Short List											
Client ID: FL 8 4'	Batcl	n ID: <b>56</b> 0	684	F	RunNo: <b>7</b>	3660						
Prep Date: 11/28/2020	Analysis D	)ate: 11	/29/2020	8	SeqNo: 2	596250	Units: mg/K	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.3	0.025	0.9940	0	127	71.1	115	2.03	20	S		
Toluene	1.1	0.050	0.9940	0	110	79.6	132	2.18	20			
Ethylbenzene	1.0	0.050	0.9940	0	104	83.8	134	9.24	20			
Xylenes, Total	3.3	0.099	2.982	0	112	82.4	132	5.76	20			
Surr: 1,2-Dichloroethane-d4	0.52		0.4970		105	70	130	0	0			
Surr: 4-Bromofluorobenzene	0.47		0.4970		95.4	70	130	0	0			
Surr: Dibromofluoromethane	0.55		0.4970		111	70	130	0	0			
Surr: Toluene-d8	0.45		0.4970		90.0	70	130	0	0			

#### Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

SampType: MBLK

SampType: MBLK

2011C97

WO#:

TestCode: EPA Method 8015D Mod: Gasoline Range

TestCode: EPA Method 8015D Mod: Gasoline Range

08-Dec-20

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-56681

Sample ID: mb-56684

		71							9-		
Client ID: PBS	Batc	Batch ID: <b>56681</b> RunNo: <b>73649</b>									
Prep Date: 11/28/2020	Analysis [	Date: 1	1/29/2020	5	SeqNo: 2	595868	Units: mg/k	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	510		500.0		101	70	130				
Sample ID: Ics-56681	Samp1	Type: <b>LC</b>	s	Tes	tCode: E	PA Method	8015D Mod:	Gasoline	Range		
Client ID: LCSS	Batc	h ID: <b>56</b>	681	F	RunNo: <b>7</b>	3649					
Prep Date: 11/28/2020 Analysis Date: 11/29/2020 SeqNo: 2595869 Units: mg/Kg											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.5	70	130				
Surr: BFB	490		500.0		97.8	70	130				
Sample ID: Ics-56684	Samp1	Type: <b>LC</b>	s	Tes	tCode: <b>E</b>	PA Method	8015D Mod:	Gasoline	Range		
Client ID: LCSS	Batc	h ID: <b>56</b>	684	F	RunNo: <b>7</b>	3660					
Prep Date: 11/28/2020	/28/2020 Analysis Date: 11/29/2020 SeqNo: 2596278 Units: mg/Kg										
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.4	70	130	•			
Surr: BFB	500		500.0		99.7	70	130				

Client ID: PBS	Batch	ID: <b>56</b> 6	684	F	RunNo: <b>7</b> :	3660				
Prep Date: 11/28/2020	Analysis D	ate: <b>11</b>	/29/2020	S	SeqNo: 2	596279	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	540		500.0		107	70	130			

Sample ID: 2011c97-006ams	SampT	ype: <b>MS</b>	3	Tes	tCode: <b>El</b>	PA Method	8015D Mod:	Gasoline l	Range	
Client ID: FL9 4'	Batch	ID: <b>56</b>	684	R	RunNo: <b>7</b> :	3660				
Prep Date: 11/28/2020 Analysis Date: 11/29/2020 SeqNo: 2596291 Units: mg/Kg										
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	24.75	0	98.8	49.2	122			
Surr: BFB	530		495.0		106	70	130			

Sample ID: 2011c97-006amsd	SampType: MSD	TestCode: EPA Method 8015D Mod: Gasoline Range
Client ID: FL9 4'	Batch ID: 56684	RunNo: <b>73660</b>
Prep Date: 11/28/2020	Analysis Date: 11/29/2020	SeqNo: <b>2596292</b> Units: <b>mg/Kg</b>
Analyte	Result POI SPK value S	SPK Ref Val. %REC. Lowl imit. Highl imit. %RPD. RPDL imit. Qual.

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2011C97** 

Qual

08-Dec-20

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: 2011c97-006amsd SampType: MSD TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: FL9 4' Batch ID: 56684 RunNo: 73660

Prep Date: 11/28/2020 Analysis Date: 11/29/2020 SeqNo: 2596292 Units: mg/Kg

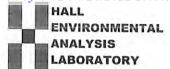
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	(
Gasoline Range Organics (GRO)	24	4.9	24.56	0	97.4	49.2	122	2.22	20	
Surr: BFB	500		491.2		101	70	130	0	0	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

## Sample Log-In Check List

Website; clients.hallenvironmental.com Client Name: Mewbourne Oil Company Work Order Number: 2011C97 RcptNo: 1 Logged in and Catelled by of 11/28/2020 Received By: Andy Freeman 11/28/2020 Completed By: Erin Melendrez 11/30/2020 8:39:31 AM Reviewed By: DF 11/18/1020 Chain of Custody 1. Is Chain of Custody complete? No 🗌 Yes V Not Present 2. How was the sample delivered? FedEx Log In 3. Was an attempt made to cool the samples? Yes V No 🗌 NA 🗌 4. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 No L NA 🔲 5. Sample(s) in proper container(s)? Yes 🗸 No 🗌 6. Sufficient sample volume for indicated test(s)? Yes 🗸 No 🗌 7. Are samples (except VOA and ONG) properly preserved? Yes 🗸 No 🗌 8. Was preservative added to bottles? Yes No V NA 9. Received at least 1 vial with headspace <1/4" for AQ VOA? NA V Yes No 🗌 Yes 🗆 10. Were any sample containers received broken? of 11/28/2020 No V # of preserved bottles checked 11. Does paperwork match bottle labels? Yes V No 🗌 for pH: (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? 12. Are matrices correctly identified on Chain of Custody? Yes 🗸 No 🗌 13. Is it clear what analyses were requested? Yes V No 🗌 14. Were all holding times able to be met? Checked by: Yes V No 🗌 (If no, notify customer for authorization.) Special Handling (if applicable) 15. Was client notified of all discrepancies with this order? Yes No 🗌 NA V Person Notified: Date: By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 16. Additional remarks: 17. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By 2.0 Good

Client:	Hain Mew	-of-Ci Bouen	ustody Record	Turn-Around Time:  Standard Rush  Project Name:  CWMS Release							N	AL	YS.	SIS	S L		30		NT/		ceived by OCD:
Mailing	Address	3:			IS R	stease		49	01 H	lawk							M 87	109			4/28/
				Project #:	910			Te	el. 50	)5-34	45-3	_	_				-4107		e-de-		202
Phone :				Project Mana							-	-	-	SIS	Req	uest	5		7	+	2:43
	Package:		☐ Level 4 (Full Validation)	hance		shaw	TMB's (8021)	O / MRO	PCB's		8270SIMS		PO4, SO4			t/Absent					3:51 PM
Accredi	AC	□ Az Co	ompliance	Sampler: La	over No	□ No	_	RO / DR	es/8082	504.1)	ō	S	NO ₂ ,		OA)	(Preser					
	(Type)		I	# of Coolers Cooler Temp	C(including CF): 1,9	+0.1 = 2.6 ( °C)	MTBE	5D(G	sticid	thod	8310	Meta	, NO ₃ ,	(AC	V-imi	iform					
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type		BTEX / I	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310	RCRA 8 Metals	CDF, Br,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
1417/22		Soil	WW 5B	1	ICE	2011097-1	X	X					X								
11/17/20		Soil	WW 4B	(	ICE	~	X	X		1			$\chi$								
1/23/20		Soil	EW 10	1	ICE	-3	X	X					X								T i
11/16/20		Soil	FL 5 @ 4'	1	Tce	-4	X	X					X								
1/16/20		Soil	FL 8 @ 4'	1	Ice	-5	X	X					X								
11/16/20		Soil	FL 9 @ 4'	1	Ice	-6	X	X					X								
11/16/20		Sail	FL 10 @ 3'	1	Ice	-7	X	X					X	)							
11/16/20		Soll	FL 17@4"	t	Ice	- 8	X	X					X								
11/16/20		Soil	FL 20 @ 4'	1	Ice	-9	X	X					X								
11/17/20		Soil	FL 22 @ 4'	1	Ice	-10	火	X					Х								
M/17/20		Soil	FL 24 @ 4'	1	Tee	-([	X	X					X					_			
11/17/20		Soil	FL 27 @ 4	1	Tue	-12	X	X					X								
Date:	Time:	Relinquish Relinquish		Received by:  Received by:	Via: Willy	Date Time	Rer	mark	S:												Page 1.
Vana	1900	acu	MMWED  britted to Hall Environmental may be sub	Mily	C.	11/28/2020															127 of 559

	hain	-of-C	ustody Record	Turn-Around	d Time: 万	Day	I				I A	a a		A B N	<i>8</i> Tr III	20	BIB	A F-1	<b>.</b> 11 - 12 - 1	
Client:	MEW	BOWEN	6,	☑ Standard	d □ Rush	1													NTA	
		000		Project Nam														KA	10	RY
Mailing	Addres	s:		CWA	15 Re	lease		49	01 H							ital.co	om M 87	100		
×				Project #:	(0)				el. 50								-4107			9
Phone	#:			137	7.96				31. 00	0	10 0			_		uest				
email o	r Fax#:			Project Mana			_	<u>0</u>					SO4							TT
QA/QC	Package	c		T.	0		3027	MR	PCB's		SI					pser				
□ Star	dard		□ Level 4 (Full Validation)	house	Creusi	raw	3's (	30/			8270SIMS		, PO ₄ ,			nt/A				
Accred			ompliance	Sampler: 🗸	, , ,	ojies	TMB's (8021)	/ DF	3082	£.			NO ₂ ,			ese				
□ NEL		□ Othe	r	On Ice: # of Coolers	Yes	□ No	-	SRO	3/sə	504.1)	0 or	<u>s</u>			(A)	P.				
	(Type)	T			O(including CF): 1,9	+0/:2 h (°C)	BTEX / MTBE / TMB's (8021) TPH:8015D(GRO / DRO / MRO) 8081 Pesticides/8082 PCB's EDB (Method 504.1) PAHs by 8310 or 8270SIMS RCRA 8 Metals CI) F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄ 8260 (VOA) Total Coliform (Present/Absent)								1					
				Container Broomstine 115ALMs X				Pes	(Me	b b	A 8 I	Ŗ,	S	(Se	Coli					
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX	P.	3081	B	AH	SCR	OF.	8260 (VOA)	270	Total				
11/1/20		Soil	FL 30 @ 4	)	Ico	2011/27-13	У	X	ω	-	-		X	ω	8			+	+	
-0.1		Soil	FL 55 @ 4'	1	Tre	-14	X	X				$\dashv$	X			Н	$\dashv$	+	+	
11/25/20		Soll					x	人		$\dashv$						$\vdash$		+	+	
11/25/20					Iu.	-15				$\dashv$		$\dashv$	X			$\vdash$	-	+	+	++
4/25/20		Soil	R 57 @ 4		Tue	-16	Х.	X	-		-		1					+	-	++-
11/25/20		Soil	FL 65 @ 4	1	Tu	-17	×	X				-	×					+	+	
11/25/20		Soil	FL 66 @ 4	1	Ice	-18	X	人			-	-	×		-	$\vdash$	$\dashv$	+		
11/25/20		26(	FL 71 @ 4'	1	Ice	-19	x	X	$\dashv$	-	-		X				_	+		+
11/25/20		Soil	FL 75 @ 4		Tee	-20	义	X		-1	$\dashv$	_	X			$\vdash$	-	$\dashv$	+	+
1125/20		Soil	FL 82 @ 4		Tre	-21	X	X			_	$\dashv$	X			$\vdash$	-	+	+	
11/25/20		Soil	FL 84 @ 4'		Tu	_ 22	X	X					X					4		
									_								1	_	_	1
Date:	Time:	Relinquish	ned by:	Received by:	Via:	,Date Time	Ron	nark												
Marto	c			acumn		11/25/20 1515	Remarks:													
Date:	Time:	Relinquish	ned by:	Received by:	Via:	Date Time														
11/27/20																				



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

December 10, 2020

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 TEL: (575) 393-5905

FAX:

RE: CWMS Release OrderNo.: 2012236

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 7 sample(s) on 12/4/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

andy

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 12/10/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: WW 7

**Project:** CWMS Release Collection Date: 11/30/2020

**Lab ID:** 2012236-001 **Matrix:** SOIL **Received Date:** 12/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	ND	61		mg/Kg	20	12/7/2020 5:05:19 PM	56826
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	CLP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/5/2020 12:45:01 PM	56804
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/5/2020 12:45:01 PM	56804
Surr: DNOP	101	30.4-154		%Rec	1	12/5/2020 12:45:01 PM	56804
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/5/2020 3:46:01 PM	56802
Surr: BFB	108	75.3-105	S	%Rec	1	12/5/2020 3:46:01 PM	56802
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.025		mg/Kg	1	12/5/2020 3:46:01 PM	56802
Toluene	ND	0.050		mg/Kg	1	12/5/2020 3:46:01 PM	56802
Ethylbenzene	ND	0.050		mg/Kg	1	12/5/2020 3:46:01 PM	56802
Xylenes, Total	ND	0.099		mg/Kg	1	12/5/2020 3:46:01 PM	56802
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	12/5/2020 3:46:01 PM	56802

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 11

Date Reported: 12/10/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: EW 11

 Project:
 CWMS Release
 Collection Date: 11/30/2020

 Lab ID:
 2012236-002
 Matrix: SOIL
 Received Date: 12/4/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	12/7/2020 5:17:43 PM	56826
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	CLP
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	12/5/2020 12:54:46 PM	56804
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/5/2020 12:54:46 PM	56804
Surr: DNOP	82.0	30.4-154	%Rec	1	12/5/2020 12:54:46 PM	56804
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/5/2020 4:10:02 PM	56802
Surr: BFB	105	75.3-105	%Rec	1	12/5/2020 4:10:02 PM	56802
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	12/5/2020 4:10:02 PM	56802
Toluene	ND	0.049	mg/Kg	1	12/5/2020 4:10:02 PM	56802
Ethylbenzene	ND	0.049	mg/Kg	1	12/5/2020 4:10:02 PM	56802
Xylenes, Total	ND	0.099	mg/Kg	1	12/5/2020 4:10:02 PM	56802
Surr: 4-Bromofluorobenzene	103	80-120	%Rec	1	12/5/2020 4:10:02 PM	56802

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 11

Date Reported: 12/10/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: EW 2B

**Project:** CWMS Release Collection Date: 11/30/2020

**Lab ID:** 2012236-003 **Matrix:** SOIL **Received Date:** 12/4/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	12/7/2020 5:54:56 PM	56845
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	CLP
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/5/2020 1:04:30 PM	56804
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/5/2020 1:04:30 PM	56804
Surr: DNOP	79.6	30.4-154	%Rec	1	12/5/2020 1:04:30 PM	56804
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/5/2020 4:34:00 PM	56802
Surr: BFB	104	75.3-105	%Rec	1	12/5/2020 4:34:00 PM	56802
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	12/5/2020 4:34:00 PM	56802
Toluene	ND	0.049	mg/Kg	1	12/5/2020 4:34:00 PM	56802
Ethylbenzene	ND	0.049	mg/Kg	1	12/5/2020 4:34:00 PM	56802
Xylenes, Total	ND	0.097	mg/Kg	1	12/5/2020 4:34:00 PM	56802
Surr: 4-Bromofluorobenzene	102	80-120	%Rec	1	12/5/2020 4:34:00 PM	56802

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/10/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW 12

Project: CWMS Release

Collection Date: 12/1/2020

**Lab ID:** 2012236-004 **Matrix:** SOIL **Received Date:** 12/4/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	12/7/2020 6:07:21 PM	56845
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	CLP
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/5/2020 1:14:13 PM	56804
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/5/2020 1:14:13 PM	56804
Surr: DNOP	82.7	30.4-154	%Rec	1	12/5/2020 1:14:13 PM	56804
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/5/2020 4:57:55 PM	56802
Surr: BFB	105	75.3-105	%Rec	1	12/5/2020 4:57:55 PM	56802
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	12/5/2020 4:57:55 PM	56802
Toluene	ND	0.049	mg/Kg	1	12/5/2020 4:57:55 PM	56802
Ethylbenzene	ND	0.049	mg/Kg	1	12/5/2020 4:57:55 PM	56802
Xylenes, Total	ND	0.098	mg/Kg	1	12/5/2020 4:57:55 PM	56802
Surr: 4-Bromofluorobenzene	103	80-120	%Rec	1	12/5/2020 4:57:55 PM	56802

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/10/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 12/1/2020

**Lab ID:** 2012236-005 **Matrix:** SOIL **Received Date:** 12/4/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	ND	60		mg/Kg	20	12/7/2020 6:44:33 PM	56845
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					Analyst	CLP
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/5/2020 1:23:57 PM	56804
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/5/2020 1:23:57 PM	56804
Surr: DNOP	72.9	30.4-154		%Rec	1	12/5/2020 1:23:57 PM	56804
EPA METHOD 8015D: GASOLINE RANGE						Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/5/2020 5:21:49 PM	56802
Surr: BFB	106	75.3-105	S	%Rec	1	12/5/2020 5:21:49 PM	56802
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.025		mg/Kg	1	12/5/2020 5:21:49 PM	56802
Toluene	ND	0.050		mg/Kg	1	12/5/2020 5:21:49 PM	56802
Ethylbenzene	ND	0.050		mg/Kg	1	12/5/2020 5:21:49 PM	56802
Xylenes, Total	ND	0.10		mg/Kg	1	12/5/2020 5:21:49 PM	56802
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	12/5/2020 5:21:49 PM	56802

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/10/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 12/2/2020

**Lab ID:** 2012236-006 **Matrix:** SOIL **Received Date:** 12/4/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	12/7/2020 6:56:58 PM	56845
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	CLP
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	12/5/2020 1:33:41 PM	56804
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/5/2020 1:33:41 PM	56804
Surr: DNOP	98.3	30.4-154	%Rec	1	12/5/2020 1:33:41 PM	56804
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/5/2020 5:45:45 PM	56802
Surr: BFB	104	75.3-105	%Rec	1	12/5/2020 5:45:45 PM	56802
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	12/5/2020 5:45:45 PM	56802
Toluene	ND	0.049	mg/Kg	1	12/5/2020 5:45:45 PM	56802
Ethylbenzene	ND	0.049	mg/Kg	1	12/5/2020 5:45:45 PM	56802
Xylenes, Total	ND	0.099	mg/Kg	1	12/5/2020 5:45:45 PM	56802
Surr: 4-Bromofluorobenzene	102	80-120	%Rec	1	12/5/2020 5:45:45 PM	56802

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/10/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 12/2/2020

**Lab ID:** 2012236-007 **Matrix:** SOIL **Received Date:** 12/4/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	80	61	mg/Kg	20	12/7/2020 7:09:22 PM	56845
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	CLP
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/5/2020 1:43:24 PM	56804
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/5/2020 1:43:24 PM	56804
Surr: DNOP	67.0	30.4-154	%Rec	1	12/5/2020 1:43:24 PM	56804
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/5/2020 6:09:37 PM	56802
Surr: BFB	100	75.3-105	%Rec	1	12/5/2020 6:09:37 PM	56802
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	12/5/2020 6:09:37 PM	56802
Toluene	ND	0.050	mg/Kg	1	12/5/2020 6:09:37 PM	56802
Ethylbenzene	ND	0.050	mg/Kg	1	12/5/2020 6:09:37 PM	56802
Xylenes, Total	ND	0.10	mg/Kg	1	12/5/2020 6:09:37 PM	56802
Surr: 4-Bromofluorobenzene	99.9	80-120	%Rec	1	12/5/2020 6:09:37 PM	56802

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

10-Dec-20

2012236

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-56826 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **56826** RunNo: **73830** 

Prep Date: 12/7/2020 Analysis Date: 12/7/2020 SeqNo: 2604047 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56826 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56826 RunNo: 73830

Prep Date: 12/7/2020 Analysis Date: 12/7/2020 SeqNo: 2604048 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 90.6 90 110

Sample ID: MB-56845 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 56845 RunNo: 73830

Prep Date: 12/7/2020 Analysis Date: 12/7/2020 SeqNo: 2604077 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56845 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56845 RunNo: 73830

Prep Date: 12/7/2020 Analysis Date: 12/7/2020 SeqNo: 2604078 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 90.6 90 110

#### Qualifiers:

- * Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2012236** 

10-Dec-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-56804 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 56804 RunNo: 73808 Units: mg/Kg Prep Date: 12/4/2020 Analysis Date: 12/5/2020 SeqNo: 2601641 Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 13 10.00 133 30.4 154

Sample ID: LCS-56804 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS Batch ID: 56804 RunNo: 73808

Prep Date: 12/4/2020 Analysis Date: 12/5/2020 SeqNo: 2601643 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Diesel Range Organics (DRO) 46 10 50.00 0 92.9 70 130 Surr: DNOP 5.1 5.000 103 30.4 154

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

10-Dec-20

2012236

WO#:

**Client:** Mewbourne Oil Company

**Project: CWMS** Release

Sample ID: mb-56805

Sample ID: mb-56802 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 56802 RunNo: 73815

Prep Date: 12/4/2020 Analysis Date: 12/5/2020 SeqNo: 2602132 Units: mq/Kq

PQL SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result LowLimit HighLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 1000 1000 105 75.3 105

Sample ID: Ics-56802 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 56802 RunNo: 73815

Prep Date: 12/4/2020 Analysis Date: 12/5/2020 SeqNo: 2602133 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 25 5.0 25.00 O 99.3 72.5 106 Surr: BFB 1100 S 1000 112 75.3 105

TestCode: EPA Method 8015D: Gasoline Range

SampType: MBLK Client ID: PBS Batch ID: 56805 RunNo: 73815

Prep Date: 12/4/2020 Analysis Date: 12/6/2020 SeqNo: 2602155 Units: %Rec

PQL SPK value SPK Ref Val HighLimit %REC %RPD **RPDLimit** Analyte Result LowLimit Qual

Surr: BFB 1000 1000 100 75.3 105

Sample ID: Ics-56805 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 56805 RunNo: 73815

Analysis Date: 12/5/2020 SeqNo: 2602156 Prep Date: 12/4/2020 Units: %Rec

%REC Analyte Result PQL SPK value SPK Ref Val LowLimit HighLimit %RPD **RPDLimit** Qual 1100 1000 112 75.3 Surr: BFB 105 S

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

2012236 10-Dec-20

WO#:

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: <b>mb-56802</b>	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	n ID: <b>56</b> 8	802	F	RunNo: <b>7</b>	3815				
Prep Date: 12/4/2020	Analysis D	ate: 12	2/5/2020	8	SeqNo: 2	602184	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			
Sample ID: LCS-56802	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8021B: Volat	iles	·	·

Sample ID: LCS-56802	Sampi	ype: LC	5	res	(Code: El	A Method	8021B: Volat	iles		
Client ID: LCSS	Batcl	n ID: <b>56</b> 8	802	F	RunNo: <b>7</b> :	3815				
Prep Date: 12/4/2020	Analysis D	)ate: 12	2/5/2020	8	SeqNo: 20	602185	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.2	80	120			
Toluene	0.99	0.050	1.000	0	98.5	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000	00 104 80 120						

Sample ID: <b>mb-56805</b>	SampTy	/pe: <b>ME</b>	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	ID: <b>568</b>	805	F	RunNo: <b>7</b> :	3815				
Prep Date: 12/4/2020	Analysis Da	ate: 12	2/6/2020	S	SeqNo: 2	602207	Units: %Rec	;		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

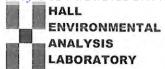
Sample ID: LCS-56805	SampTyp	e: LCS	Test	Code: EP	A Method	8021B: Volat	iles		
Client ID: LCSS	Batch II	D: <b>56805</b>	R	tunNo: <b>73</b>	815				
Prep Date: 12/4/2020	Analysis Date	e: <b>12/6/2020</b>	S	eqNo: <b>26</b>	02208	Units: %Rec			
Analyte	Result	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0	1 000		103	80	120			

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name:	Mewbourne	e Oil Company	Work	Order Number	201	2236			RcptNo: 1	
Received By:	Sean Livi	ngston	12/4/20	20 8:00:00 AM			S	_6	not-	
Completed By:	Desiree D	ominguez	12/4/20	20 8:44:28 AM			T		0-	
Reviewed By:	cu	3	12/2 Z	12/4/2			1-1-	3		
Chain of Cus	tody									
1. Is Chain of Cu	ustody comp	lete?			Yes	V	No		Not Present	
2. How was the	sample deliv	ered?			Cou	rier				
Log In										
3. Was an attem	pt made to c	cool the sample	es?		Yes	<b>V</b>	No		NA 🗌	
4. Were all samp	oles received	at a temperati	ure of >0° C	to 6.0°C	Yes	V	No		NA 🗆	
5. Sample(s) in p	proper contai	iner(s)?			Yes	<b>V</b>	No			
6. Sufficient sam	ple volume f	or indicated tes	st(s)?		Yes	<b>V</b>	No			
7. Are samples (	except VOA	and ONG) prop	perly preserve	ed?	Yes	<b>V</b>	No			
8. Was preserval	tive added to	bottles?			Yes		No	<b>V</b>	NA 🗆	
9. Received at le	ast 1 vial wit	h headspace <	1/4" for AQ V	OA?	Yes		No		NA 🗹	
10. Were any san	nple containe	ers received bro	oken?		Yes		No	<b>V</b>	# of preserved bottles checked	
11. Does paperwo (Note discrepa					Yes	<b>V</b>	No		for pH: (<2 or >12 unless noted	d)
12. Are matrices of	correctly iden	tified on Chain	of Custody?		Yes	<b>V</b>	No		Adjusted?	
13. Is it clear what	t analyses we	ere requested?			Yes	<b>V</b>	No			
14. Were all holdir (If no, notify cu	-				Yes	<b>V</b>	No		Checked by: SGL 12/4/2	ی
Special Handl	ing (if app	olicable)								
15. Was client no			ith this order?	>	Yes		No		NA 🗹	
Person	Notified:			Date:				-		
By Who	om:			Via:	eM	ail	Phone [	Fax	☐ In Person	
Regardi	ing:		• ;							
Client Ir	structions:									
16. Additional rer	marks:									
17. Cooler Infor	mation									
Cooler No		Condition	Seal Intact	Seal No S	eal D	ate	Signed	Ву		
1	0.1	Good					9,,	,		
2	0.2	Good								
3	1.5	Good								

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	Imaging:
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Client: Membourne  Mailing Address:				Turn-Around Time:  Standard □ Rush  Project Name:			HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com												
				CWMS Release				4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107											
				Project #:				Т	el. 50	05-34	5-39	975	F	ах	505	-345-4	107		1202
Phone #:				13296			Analysis Request												
email or Fax#:				Project Manager:				00	,,				SO ₄			eut)			10.0
QA/QC Package:  □ Standard □ Level 4 (Full Validation)				havee Crenshaw			TMB's (8021)	DRO / MRO)	PCB's		8270SIMS		PO ₄ ,			nt/Abs			75.51.1.11
Accreditation:   Az Compliance			Sampler: heave				-	3082	504.1)	827		NO ₂ ,			ese				
□ NELAC □ Other			On Ice: Yes No				RO	es/E	205	ō	8			YOA.	F)				
□ EDD (Type)			# of Coolers: 3  Cooler Temp(including CF): See remarks (°C)				)D(G	ticid	thod	831	Meta	ž	€	V-im	form				
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type		BTEX / MTBE.	TPH:8015D(GRO	8081 Pesticides/8082	EDB (Method	PAHs by 8310	RCRA 8 Metals	CI)F, Br, NO ₃ ,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)			
11/30/20		Soil	WW 7		Fu	- 001	X	X					X						
11/30/20		Soil	EW II	J	Ice	-002	x	4					X						
1/30/20		Soil	EW 2B	1	Ja	-003	义	X					X						
2/1/20		Soil	EW 12	(	Ice	- 004	X	X					X						
12/1/20		Soll	ww 8	1	Tee	-005	×	X					X						
12/20		Soll	EW 13		Tee	- 004	$\alpha$	X					1						
12/20		Soll	WW9	J	Ice	-007	2	入					1						
Date:	Time:	Relinquished by:		Received by: Via: Date Time			Remarks:												
Date:	Time: 1900	Relinquis	med by: -	Received by: Via: Date Time  SGL COURT 12/4/20 8:00				$0.3 - 0.2 = 0.1^{e_{C}}$ $0.4 - 0.2 = 0.2^{e_{C}}$ $1.7 - 0.2 = 1.5^{e_{C}}$ To precipility. Any sub-contracted data will be clearly notated on the analytical report.											



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

December 16, 2020

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241

TEL: (575) 393-5905

FAX

RE: CWMS Release OrderNo.: 2012361

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 8 sample(s) on 12/8/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 12/16/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 12/3/2020

**Lab ID:** 2012361-001 **Matrix:** SOIL **Received Date:** 12/8/2020 7:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	65	60	mg/Kg	20	12/13/2020 4:19:01 PM	56964
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	12/9/2020 6:26:23 PM	56869
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/9/2020 6:26:23 PM	56869
Surr: DNOP	96.7	30.4-154	%Rec	1	12/9/2020 6:26:23 PM	56869
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/11/2020 3:28:17 AM	56865
Surr: BFB	87.4	75.3-105	%Rec	1	12/11/2020 3:28:17 AM	56865
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.024	mg/Kg	1	12/11/2020 3:28:17 AM	56865
Toluene	ND	0.049	mg/Kg	1	12/11/2020 3:28:17 AM	56865
Ethylbenzene	ND	0.049	mg/Kg	1	12/11/2020 3:28:17 AM	56865
Xylenes, Total	ND	0.097	mg/Kg	1	12/11/2020 3:28:17 AM	56865
Surr: 4-Bromofluorobenzene	86.4	80-120	%Rec	1	12/11/2020 3:28:17 AM	56865

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 12

Date Reported: 12/16/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW 11

Project: CWMS Release

Collection Date: 12/3/2020

**Lab ID:** 2012361-002 **Matrix:** SOIL **Received Date:** 12/8/2020 7:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	VP
Chloride	ND	61	mg/Kg	20	12/13/2020 4:56:15 PM	56964
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/9/2020 6:35:52 PM	56869
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/9/2020 6:35:52 PM	56869
Surr: DNOP	104	30.4-154	%Rec	1	12/9/2020 6:35:52 PM	56869
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/11/2020 3:51:34 AM	56865
Surr: BFB	88.5	75.3-105	%Rec	1	12/11/2020 3:51:34 AM	56865
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst:	RAA
Benzene	ND	0.025	mg/Kg	1	12/11/2020 3:51:34 AM	56865
Toluene	ND	0.049	mg/Kg	1	12/11/2020 3:51:34 AM	56865
Ethylbenzene	ND	0.049	mg/Kg	1	12/11/2020 3:51:34 AM	56865
Xylenes, Total	ND	0.099	mg/Kg	1	12/11/2020 3:51:34 AM	56865
Surr: 4-Bromofluorobenzene	87.3	80-120	%Rec	1	12/11/2020 3:51:34 AM	56865

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/16/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW 12

Project: CWMS Release

Collection Date: 12/3/2020

**Lab ID:** 2012361-003 **Matrix:** SOIL **Received Date:** 12/8/2020 7:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	VP
Chloride	81	60	mg/Kg	20	12/13/2020 5:08:39 PM	56964
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	12/9/2020 6:45:20 PM	56869
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/9/2020 6:45:20 PM	56869
Surr: DNOP	124	30.4-154	%Rec	1	12/9/2020 6:45:20 PM	56869
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/11/2020 4:14:52 AM	56865
Surr: BFB	87.6	75.3-105	%Rec	1	12/11/2020 4:14:52 AM	56865
EPA METHOD 8021B: VOLATILES					Analyst:	RAA
Benzene	ND	0.024	mg/Kg	1	12/11/2020 4:14:52 AM	56865
Toluene	ND	0.048	mg/Kg	1	12/11/2020 4:14:52 AM	56865
Ethylbenzene	ND	0.048	mg/Kg	1	12/11/2020 4:14:52 AM	56865
Xylenes, Total	ND	0.096	mg/Kg	1	12/11/2020 4:14:52 AM	56865
Surr: 4-Bromofluorobenzene	87.1	80-120	%Rec	1	12/11/2020 4:14:52 AM	56865

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/16/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW 13

Project: CWMS Release

Collection Date: 12/3/2020

**Lab ID:** 2012361-004 **Matrix:** SOIL **Received Date:** 12/8/2020 7:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Bat	tch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>	,
Chloride	320	60	mg/Kg	20	12/13/2020 5:21:04 PM 569	964
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: BR	₹M
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/9/2020 6:54:48 PM 568	869
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/9/2020 6:54:48 PM 568	869
Surr: DNOP	84.6	30.4-154	%Rec	1	12/9/2020 6:54:48 PM 568	869
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RA	۱A
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/11/2020 12:42:11 PM 568	865
Surr: BFB	92.3	75.3-105	%Rec	1	12/11/2020 12:42:11 PM 568	865
EPA METHOD 8021B: VOLATILES					Analyst: RA	۱A
Benzene	ND	0.025	mg/Kg	1	12/11/2020 12:42:11 PM 568	865
Toluene	ND	0.050	mg/Kg	1	12/11/2020 12:42:11 PM 568	865
Ethylbenzene	ND	0.050	mg/Kg	1	12/11/2020 12:42:11 PM 568	865
Xylenes, Total	ND	0.10	mg/Kg	1	12/11/2020 12:42:11 PM 568	865
Surr: 4-Bromofluorobenzene	90.2	80-120	%Rec	1	12/11/2020 12:42:11 PM 568	365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/16/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW 14

Project: CWMS Release

Collection Date: 12/3/2020

**Lab ID:** 2012361-005 **Matrix:** SOIL **Received Date:** 12/8/2020 7:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	VP
Chloride	190	60	mg/Kg	20	12/13/2020 5:33:28 PM	56964
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/9/2020 7:04:17 PM	56869
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/9/2020 7:04:17 PM	56869
Surr: DNOP	90.3	30.4-154	%Rec	1	12/9/2020 7:04:17 PM	56869
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/11/2020 1:05:43 PM	56865
Surr: BFB	91.8	75.3-105	%Rec	1	12/11/2020 1:05:43 PM	56865
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst:	RAA
Benzene	ND	0.024	mg/Kg	1	12/11/2020 1:05:43 PM	56865
Toluene	ND	0.047	mg/Kg	1	12/11/2020 1:05:43 PM	56865
Ethylbenzene	ND	0.047	mg/Kg	1	12/11/2020 1:05:43 PM	56865
Xylenes, Total	ND	0.095	mg/Kg	1	12/11/2020 1:05:43 PM	56865
Surr: 4-Bromofluorobenzene	89.9	80-120	%Rec	1	12/11/2020 1:05:43 PM	56865

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/16/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW 15

Project: CWMS Release

Collection Date: 12/3/2020

**Lab ID:** 2012361-006 **Matrix:** SOIL **Received Date:** 12/8/2020 7:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	61	mg/Kg	20	12/13/2020 5:45:53 PM	56964
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	12/9/2020 7:13:46 PM	56869
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	12/9/2020 7:13:46 PM	56869
Surr: DNOP	120	30.4-154	%Rec	1	12/9/2020 7:13:46 PM	56869
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/11/2020 1:29:17 PM	56865
Surr: BFB	93.4	75.3-105	%Rec	1	12/11/2020 1:29:17 PM	56865
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.024	mg/Kg	1	12/11/2020 1:29:17 PM	56865
Toluene	ND	0.048	mg/Kg	1	12/11/2020 1:29:17 PM	56865
Ethylbenzene	ND	0.048	mg/Kg	1	12/11/2020 1:29:17 PM	56865
Xylenes, Total	ND	0.097	mg/Kg	1	12/11/2020 1:29:17 PM	56865
Surr: 4-Bromofluorobenzene	91.8	80-120	%Rec	1	12/11/2020 1:29:17 PM	56865

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/16/2020

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW 16

Project: CWMS Release

Collection Date: 12/3/2020

**Lab ID:** 2012361-007 **Matrix:** SOIL **Received Date:** 12/8/2020 7:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	12/13/2020 6:23:06 PM	56964
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	8.9	mg/Kg	1	12/9/2020 7:23:14 PM	56869
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	12/9/2020 7:23:14 PM	56869
Surr: DNOP	110	30.4-154	%Rec	1	12/9/2020 7:23:14 PM	56869
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/11/2020 1:52:40 PM	56865
Surr: BFB	91.0	75.3-105	%Rec	1	12/11/2020 1:52:40 PM	56865
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.024	mg/Kg	1	12/11/2020 1:52:40 PM	56865
Toluene	ND	0.048	mg/Kg	1	12/11/2020 1:52:40 PM	56865
Ethylbenzene	ND	0.048	mg/Kg	1	12/11/2020 1:52:40 PM	56865
Xylenes, Total	ND	0.096	mg/Kg	1	12/11/2020 1:52:40 PM	56865
Surr: 4-Bromofluorobenzene	88.7	80-120	%Rec	1	12/11/2020 1:52:40 PM	56865

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/16/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW 6C

Project: CWMS Release

Collection Date: 12/7/2020

**Lab ID:** 2012361-008 **Matrix:** SOIL **Received Date:** 12/8/2020 7:45:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	VP
Chloride	ND	60	mg/Kg	20	12/13/2020 6:35:31 PM	56964
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/9/2020 7:32:44 PM	56869
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/9/2020 7:32:44 PM	56869
Surr: DNOP	102	30.4-154	%Rec	1	12/9/2020 7:32:44 PM	56869
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/11/2020 2:16:10 PM	56865
Surr: BFB	93.6	75.3-105	%Rec	1	12/11/2020 2:16:10 PM	56865
EPA METHOD 8021B: VOLATILES					Analyst:	RAA
Benzene	ND	0.024	mg/Kg	1	12/11/2020 2:16:10 PM	56865
Toluene	ND	0.048	mg/Kg	1	12/11/2020 2:16:10 PM	56865
Ethylbenzene	ND	0.048	mg/Kg	1	12/11/2020 2:16:10 PM	56865
Xylenes, Total	ND	0.097	mg/Kg	1	12/11/2020 2:16:10 PM	56865
Surr: 4-Bromofluorobenzene	89.6	80-120	%Rec	1	12/11/2020 2:16:10 PM	56865

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2012361** *16-Dec-20* 

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-56964 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 56964 RunNo: 73975

Prep Date: 12/13/2020 Analysis Date: 12/13/2020 SeqNo: 2609319 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56964 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56964 RunNo: 73975

Prep Date: 12/13/2020 Analysis Date: 12/13/2020 SeqNo: 2609320 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 92.9 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

2012361 16-Dec-20

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: LCS-56869 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 56869 RunNo: 73877

Prep Date: 12/8/2020 Analysis Date: 12/9/2020 SeqNo: 2606332 Units: mg/Kg

PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte Result LowLimit Diesel Range Organics (DRO) 10 0 57 50.00 114 70 130

Surr: DNOP 6.9 5.000 138 30.4 154

Sample ID: MB-56869 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 56869 RunNo: 73877

Prep Date: 12/8/2020 Analysis Date: 12/9/2020 SeqNo: 2606333 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Diesel Range Organics (DRO) ND 10

Motor Oil Range Organics (MRO) ND 50

Surr: DNOP 11 10.00 106 30.4 154

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

2012361 16-Dec-20

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: Ics-56865 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 56865 RunNo: 73943

Prep Date: 12/8/2020 Analysis Date: 12/10/2020 SeqNo: 2607657 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Gasoline Range Organics (GRO)
 22
 5.0
 25.00
 0
 86.8
 72.5
 106

 Surr: BFB
 980
 1000
 98.0
 75.3
 105

Sample ID: mb-56865 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 56865 RunNo: 73943

Prep Date: 12/8/2020 Analysis Date: 12/10/2020 SeqNo: 2607659 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 870 1000 87.2 75.3 105

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2012361** 

16-Dec-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: LCS-56865	SampT	ype: <b>LC</b>	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batcl	n ID: <b>56</b> 8	365	F	RunNo: <b>7</b>	3943				
Prep Date: 12/8/2020	Analysis D	oate: 12	2/10/2020	S	SeqNo: 2	607706	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	al %REC LowLimit		HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.4	80	120			
Toluene	0.95	0.050	1.000	0	94.7	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.9	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.6	80	120			
Surr: 4-Bromofluorobenzene	0.89		1.000		88.9	80	120			

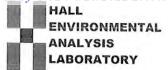
Sample ID: mb-56865	Samp٦	Гуре: <b>МЕ</b>	BLK	TestCode: EPA Method 8021B: Volatiles										
Client ID: PBS	Batcl	h ID: <b>56</b>	865	F	RunNo: 7									
Prep Date: 12/8/2020	Analysis [	Date: 12	2/10/2020	S	SeqNo: 2	607708	Units: mg/k	(g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	ND	0.025												
Toluene	ND	0.050												
Ethylbenzene	ND	0.050												
Xylenes, Total	ND	0.10												
Surr: 4-Bromofluorobenzene	0.86		1.000		86.5	80	120							

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: clients.hallenvironmental.com

## Sample Log-In Check List

Client Name: Mewbourne Oil Company Work Order Number: 2012361 RcptNo: 1 Received By: Isaiah Ortiz 12/8/2020 7:45:00 AM Completed By: Desiree Dominguez 12/8/2020 9:40:33 AM Reviewed By: SGL (Z 8/20 Chain of Custody 1. Is Chain of Custody complete? Yes 🗸 No 🗌 Not Present 2. How was the sample delivered? Courier Log In 3. Was an attempt made to cool the samples? No 🗌 Yes V NA 🗌 No 🗌 Were all samples received at a temperature of >0° C to 6.0°C Yes V NA [] Sample(s) in proper container(s)? Yes V No 🗌 Sufficient sample volume for indicated test(s)? Yes 🗸 No 🗌 7. Are samples (except VOA and ONG) properly preserved? No 🗌 Yes 🗸 8. Was preservative added to bottles? Yes 🗌 No 🗸 NA 🗌 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes 🗌 No 🗌 NA V Yes 10. Were any sample containers received broken? No 🗸 # of preserved bottles checked 11. Does paperwork match bottle labels? Yes V No 🗌 for pH: (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? 12. Are matrices correctly identified on Chain of Custody? Yes 🗸 No 🗌 13. Is it clear what analyses were requested? Yes V No 🗔 Checked by: JR 12/8/20 No 🗌 14. Were all holding times able to be met? Yes 🗸 (If no, notify customer for authorization.) Special Handling (if applicable) 15. Was client notified of all discrepancies with this order? Yes No 🗌 NA V Person Notified: Date: By Whom: eMail Phone Fax In Person Regarding: Client Instructions: 16. Additional remarks: 17. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date Signed By 0.1 Good

Ol: 1	Mer	ubou	ustody Record	Turn-Around  Standard  Project Name	ッ I □ Rush		HALL ENVIRONMENTA ANALYSIS LABORATOR www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109						. 0							
				Project #:	Kell	776			ยา H el. 50									09		78/7
Phone #	<del></del>	-		13	296			16	a. 50	0-34	o-38	_		_		uest	4107	11.0	T/ST	
email or	r Fax#:			Project Mana			SO ₄ SO ₄						45:							
QA/QC F □ Stan			☐ Level 4 (Full Validation)	hance Chenstran				DRO/MRO)	PCB's		8270SIMS		PO ₄ ,			nt/Abse				31 FM
Accredi	AC	□ Az Co	mpliance 	Sampler: Leoul Mollos On Ice: ☐ Yes ☐ No			E / TMB's (8021)	~	8081 Pesticides/8082	504.1)	-		3, NO ₂ ,		OA)	Total Coliform (Present/Absent)				
□ EDD	(Type)			# of Coolers: Cooler Temp	(including CF): 0.1	c±O (°C)	MTB	15D(G	esticid	(Method	y 8310	8 Metals	3r, NO ₃ ,	(OA)	Semi-V	oliform				
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2012361	BTEX / MTBE	TPH:8015D(GRO	8081 P	EDB (N	PAHs by	RCRA	C. F. Br,	8260 (VOA)	8270 (Semi-VOA)	Total C				
12/3/20	)	Soil	ww 10	1	Ice	-001	X	X					K							
12/3/20		Soil	ww Il	1	Tio	-002	X	X					K					1		
12/3/20		Soil	un 12	(	Ico	-003	X	X					X							
12/3/20		Soil	ww 13		Tue	-004	X	X					1							
17/3/20		Soil	EW 14	l	10	-005	X	X					X							
17/3/20		Sal	EW 15	(	Tep	- 006	X	X					X							
12/3/20		Soil	En 16	l	Ico	-007	X	X				,	X							
12/42		5011	WW 6C	1	Ice	-008	X	7			+	_	X	_		- 1				
																		1		
								$\dashv$		$\dashv$	+	+	+	$\dashv$			+		+	
Date:	Time:	Relinquish		Received by:	via:	147/20 1530	Ren		Mai										1	Page 157
Date:	Time:	Relinquish	by by:	Received by:	Via: V	Date Time 2 (な)20 0745		5	ali	Hac		TO	121	8/20	>	10	↑ the anal			15/0/33



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

December 16, 2020

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241

TEL: (575) 393-5905

FAX

RE: CWMS Release OrderNo.: 2012532

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 9 sample(s) on 12/10/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Project:

#### **Analytical Report**

Collection Date: 12/4/2020

Lab Order 2012532 Date Reported: 12/16/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: WW 14 **CWMS** Release

2012532-001 Matrix: SOIL Lab ID: Received Date: 12/10/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	12/14/2020 6:59:28 PM	56976
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	12/12/2020 10:59:41 AM	И 56935
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/12/2020 10:59:41 AM	И 56935
Surr: DNOP	115	30.4-154	%Rec	1	12/12/2020 10:59:41 AM	И 56935
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/13/2020 2:21:44 AM	56906
Surr: BFB	83.9	75.3-105	%Rec	1	12/13/2020 2:21:44 AM	56906
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.025	mg/Kg	1	12/13/2020 2:21:44 AM	56906
Toluene	ND	0.050	mg/Kg	1	12/13/2020 2:21:44 AM	56906
Ethylbenzene	ND	0.050	mg/Kg	1	12/13/2020 2:21:44 AM	56906
Xylenes, Total	ND	0.099	mg/Kg	1	12/13/2020 2:21:44 AM	56906
Surr: 4-Bromofluorobenzene	86.0	80-120	%Rec	1	12/13/2020 2:21:44 AM	56906

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

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Lab Order **2012532**Date Reported: **12/16/2020** 

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: WW 15

 Project:
 CWMS Release
 Collection Date: 12/4/2020

 Lab ID:
 2012532-002
 Matrix: SOIL
 Received Date: 12/10/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	12/14/2020 7:11:52 PM 56976
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	12/12/2020 11:09:10 AM 56935
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/12/2020 11:09:10 AM 56935
Surr: DNOP	132	30.4-154	%Rec	1	12/12/2020 11:09:10 AM 56935
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/12/2020 4:19:02 PM 56929
Surr: BFB	91.2	75.3-105	%Rec	1	12/12/2020 4:19:02 PM 56929
EPA METHOD 8021B: VOLATILES					Analyst: <b>RAA</b>
Benzene	ND	0.024	mg/Kg	1	12/12/2020 4:19:02 PM 56929
Toluene	ND	0.047	mg/Kg	1	12/12/2020 4:19:02 PM 56929
Ethylbenzene	ND	0.047	mg/Kg	1	12/12/2020 4:19:02 PM 56929
Xylenes, Total	ND	0.094	mg/Kg	1	12/12/2020 4:19:02 PM 56929
Surr: 4-Bromofluorobenzene	90.5	80-120	%Rec	1	12/12/2020 4:19:02 PM 56929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

## **Analytical Report**

Collection Date: 12/4/2020

Lab Order 2012532 Date Reported: 12/16/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: EW 17 **CWMS** Release

Matrix: SOIL Lab ID: 2012532-003 Received Date: 12/10/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	59	mg/Kg	20	12/14/2020 7:24:16 PM	56976
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	12/12/2020 11:18:39 AM	M 56935
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/12/2020 11:18:39 AM	M 56935
Surr: DNOP	115	30.4-154	%Rec	1	12/12/2020 11:18:39 AM	M 56935
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/12/2020 5:29:03 PM	56929
Surr: BFB	91.0	75.3-105	%Rec	1	12/12/2020 5:29:03 PM	56929
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.024	mg/Kg	1	12/12/2020 5:29:03 PM	56929
Toluene	ND	0.049	mg/Kg	1	12/12/2020 5:29:03 PM	56929
Ethylbenzene	ND	0.049	mg/Kg	1	12/12/2020 5:29:03 PM	56929
Xylenes, Total	ND	0.097	mg/Kg	1	12/12/2020 5:29:03 PM	56929
Surr: 4-Bromofluorobenzene	89.3	80-120	%Rec	1	12/12/2020 5:29:03 PM	56929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

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Lab Order **2012532**Date Reported: **12/16/2020** 

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW 18

Project: CWMS Release

Collection Date: 12/4/2020

**Lab ID:** 2012532-004 **Matrix:** SOIL **Received Date:** 12/10/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	: VP
Chloride	ND	61	mg/Kg	20	12/14/2020 7:36:40 PM	56976
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	12/12/2020 11:28:09 AM	И 56935
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/12/2020 11:28:09 AM	И 56935
Surr: DNOP	140	30.4-154	%Rec	1	12/12/2020 11:28:09 AM	Л 56935
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/13/2020 2:44:38 AM	56929
Surr: BFB	83.4	75.3-105	%Rec	1	12/13/2020 2:44:38 AM	56929
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	RAA
Benzene	ND	0.024	mg/Kg	1	12/13/2020 2:44:38 AM	56929
Toluene	ND	0.048	mg/Kg	1	12/13/2020 2:44:38 AM	56929
Ethylbenzene	ND	0.048	mg/Kg	1	12/13/2020 2:44:38 AM	56929
Xylenes, Total	ND	0.097	mg/Kg	1	12/13/2020 2:44:38 AM	56929
Surr: 4-Bromofluorobenzene	84.9	80-120	%Rec	1	12/13/2020 2:44:38 AM	56929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012532**Date Reported: **12/16/2020** 

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 118 @ 4'

Project: CWMS Release

Collection Date: 12/7/2020

**Lab ID:** 2012532-005 **Matrix:** SOIL **Received Date:** 12/10/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	300	60	mg/Kg	20	12/14/2020 7:49:05 PM 56976
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: BRM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	12/12/2020 11:37:42 AM 56935
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/12/2020 11:37:42 AM 56935
Surr: DNOP	134	30.4-154	%Rec	1	12/12/2020 11:37:42 AM 56935
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/13/2020 3:07:36 AM 56929
Surr: BFB	84.0	75.3-105	%Rec	1	12/13/2020 3:07:36 AM 56929
EPA METHOD 8021B: VOLATILES					Analyst: <b>RAA</b>
Benzene	ND	0.025	mg/Kg	1	12/13/2020 3:07:36 AM 56929
Toluene	ND	0.050	mg/Kg	1	12/13/2020 3:07:36 AM 56929
Ethylbenzene	ND	0.050	mg/Kg	1	12/13/2020 3:07:36 AM 56929
Xylenes, Total	ND	0.099	mg/Kg	1	12/13/2020 3:07:36 AM 56929
Surr: 4-Bromofluorobenzene	86.2	80-120	%Rec	1	12/13/2020 3:07:36 AM 56929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012532**Date Reported: **12/16/2020** 

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 129 @ 4'

Project: CWMS Release

Collection Date: 12/7/2020

**Lab ID:** 2012532-006 **Matrix:** SOIL **Received Date:** 12/10/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	540	61	mg/Kg	20	12/14/2020 8:01:30 PM	56976
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	12/12/2020 11:47:15 AM	И 56935
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	12/12/2020 11:47:15 AM	И 56935
Surr: DNOP	99.5	30.4-154	%Rec	1	12/12/2020 11:47:15 AM	Л 56935
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/13/2020 4:16:23 AM	56929
Surr: BFB	83.1	75.3-105	%Rec	1	12/13/2020 4:16:23 AM	56929
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.025	mg/Kg	1	12/13/2020 4:16:23 AM	56929
Toluene	ND	0.049	mg/Kg	1	12/13/2020 4:16:23 AM	56929
Ethylbenzene	ND	0.049	mg/Kg	1	12/13/2020 4:16:23 AM	56929
Xylenes, Total	ND	0.098	mg/Kg	1	12/13/2020 4:16:23 AM	56929
Surr: 4-Bromofluorobenzene	85.0	80-120	%Rec	1	12/13/2020 4:16:23 AM	56929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012532**Date Reported: **12/16/2020** 

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 128 @ 4'

Project: CWMS Release

Collection Date: 12/7/2020

**Lab ID:** 2012532-007 **Matrix:** SOIL **Received Date:** 12/10/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	150	60	mg/Kg	20	12/14/2020 9:03:32 PM	56991
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/12/2020 11:56:45 AM	И 56935
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/12/2020 11:56:45 AM	И 56935
Surr: DNOP	115	30.4-154	%Rec	1	12/12/2020 11:56:45 AM	Л 56935
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/13/2020 4:39:16 AM	56929
Surr: BFB	84.0	75.3-105	%Rec	1	12/13/2020 4:39:16 AM	56929
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.024	mg/Kg	1	12/13/2020 4:39:16 AM	56929
Toluene	ND	0.047	mg/Kg	1	12/13/2020 4:39:16 AM	56929
Ethylbenzene	ND	0.047	mg/Kg	1	12/13/2020 4:39:16 AM	56929
Xylenes, Total	ND	0.095	mg/Kg	1	12/13/2020 4:39:16 AM	56929
Surr: 4-Bromofluorobenzene	87.1	80-120	%Rec	1	12/13/2020 4:39:16 AM	56929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012532**Date Reported: **12/16/2020** 

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: SW 3

**Project:** CWMS Release Collection Date: 12/7/2020

**Lab ID:** 2012532-008 **Matrix:** SOIL **Received Date:** 12/10/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	61	mg/Kg	20	12/14/2020 9:15:56 PM	56991
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/12/2020 12:06:19 PM	M 56935
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/12/2020 12:06:19 PM	M 56935
Surr: DNOP	112	30.4-154	%Rec	1	12/12/2020 12:06:19 PM	M 56935
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: RAA
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/13/2020 5:02:13 AM	56929
Surr: BFB	81.9	75.3-105	%Rec	1	12/13/2020 5:02:13 AM	56929
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	: RAA
Benzene	ND	0.025	mg/Kg	1	12/13/2020 5:02:13 AM	56929
Toluene	ND	0.050	mg/Kg	1	12/13/2020 5:02:13 AM	56929
Ethylbenzene	ND	0.050	mg/Kg	1	12/13/2020 5:02:13 AM	56929
Xylenes, Total	ND	0.099	mg/Kg	1	12/13/2020 5:02:13 AM	56929
Surr: 4-Bromofluorobenzene	84.6	80-120	%Rec	1	12/13/2020 5:02:13 AM	56929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**CLIENT:** Mewbourne Oil Company

### **Analytical Report**

Lab Order **2012532**Date Reported: **12/16/2020** 

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: NW 1

**Project:** CWMS Release Collection Date: 12/7/2020

**Lab ID:** 2012532-009 **Matrix:** SOIL **Received Date:** 12/10/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	12/14/2020 9:28:20 PM 56991
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/12/2020 12:15:54 PM 56935
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/12/2020 12:15:54 PM 56935
Surr: DNOP	101	30.4-154	%Rec	1	12/12/2020 12:15:54 PM 56935
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/13/2020 5:25:09 AM 56929
Surr: BFB	82.2	75.3-105	%Rec	1	12/13/2020 5:25:09 AM 56929
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.024	mg/Kg	1	12/13/2020 5:25:09 AM 56929
Toluene	ND	0.049	mg/Kg	1	12/13/2020 5:25:09 AM 56929
Ethylbenzene	ND	0.049	mg/Kg	1	12/13/2020 5:25:09 AM 56929
Xylenes, Total	ND	0.097	mg/Kg	1	12/13/2020 5:25:09 AM 56929
Surr: 4-Bromofluorobenzene	85.3	80-120	%Rec	1	12/13/2020 5:25:09 AM 56929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

16-Dec-20

2012532

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-56976 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **56976** RunNo: **73996** 

Prep Date: 12/14/2020 Analysis Date: 12/14/2020 SeqNo: 2610588 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56976 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56976 RunNo: 73996

Prep Date: 12/14/2020 Analysis Date: 12/14/2020 SeqNo: 2610589 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 93.8 90 110

Sample ID: MB-56991 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **56991** RunNo: **73996** 

Prep Date: 12/14/2020 Analysis Date: 12/14/2020 SeqNo: 2610620 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56991 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56991 RunNo: 73996

Prep Date: 12/14/2020 Analysis Date: 12/14/2020 SeqNo: 2610621 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 93.4 90 110

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: 2012532 16-Dec-20

**Client:** Mewbourne Oil Company

**Project: CWMS** Release

Sample ID: LCS-56935	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics				
Client ID: LCSS	Batch ID: 56935	RunNo: <b>73978</b>			
Prep Date: 12/11/2020	Analysis Date: 12/12/202	SeqNo: <b>2609489</b>	Units: mg/Kg		
Analyte	Result PQL SPK v	alue SPK Ref Val %REC LowLimi	t HighLimit %RPD RPDLimit	Qual	
Diesel Range Organics (DRO)	51 10 5	0.00 0 102 70	130		
Surr: DNOP	5.5 5	.000 109 30.4	154		
Sample ID: LCS-56944	SampType: <b>LCS</b>	TestCode: EPA Metho	d 8015M/D: Diesel Range Organics		
Client ID: LCSS	Batch ID: 56944	RunNo: <b>73978</b>			
Prep Date: <b>12/11/2020</b>	Analysis Date: 12/12/202	90 SeqNo: <b>2609491</b>	Units: %Rec		
Analyte	Result PQL SPK v	alue SPK Ref Val %REC LowLimi	t HighLimit %RPD RPDLimit	Qual	
Surr: DNOP	4.1 5	.000 81.9 30.4	154		
Sample ID: LCS-56946	SampType: <b>LCS</b>	TestCode: EPA Metho	d 8015M/D: Diesel Range Organics		
Client ID: LCSS	Batch ID: 56946	RunNo: <b>73978</b>			
Prep Date: <b>12/11/2020</b>	Analysis Date: 12/12/202	90 SeqNo: <b>2609492</b>	Units: %Rec		
Analyte	Result PQL SPK v	alue SPK Ref Val %REC LowLimi	HighLimit %RPD RPDLimit	Qual	
Surr: DNOP	4.7 5	94.1 30.4	154		
Sample ID: MB-56935	SampType: MBLK	TestCode: EPA Metho	d 8015M/D: Diesel Range Organics		
Client ID: PBS	Batch ID: 56935	RunNo: <b>73978</b>			
	Analysis Date: 12/12/202	90 SegNo: <b>2609493</b>	Units: mg/Kg		

Sample ID. <b>WB-36933</b>	Sampi	ype. we	DLN	165	resicode. EPA Method 6015M/D: Diesei Range Organics					
Client ID: PBS	PBS Batch ID: 56935 RunNo: 73978									
Prep Date: 12/11/2020	Analysis D	ate: 12	2/12/2020	S	SeqNo: 2	609493	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		123	30.4	154			

Sample ID: <b>MB-56944</b>	SampType: <b>MBLK</b>	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 56944	RunNo: <b>73978</b>
Prep Date: 12/11/2020	Analysis Date: 12/12/2020	SeqNo: <b>2609495</b> Units: <b>%Rec</b>
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	8.9 10.00	88 9 30 4 154

Sample ID: MB-56946	SampType:							nod 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID:	56946	F	RunNo: 7	3978									
Prep Date: 12/11/2020	Analysis Date:	12/12/2020	S	SeqNo: 2	609496	Units: %Red	:							
Analyte	Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual					
Surr: DNOP	9.3	10.00		93.1	30.4	154								

Surr: DNO

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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# Hall Environmental Analysis Laboratory, Inc.

2012532

WO#:

16-Dec-20

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: 2012532-002ams	SampT	SampType: MS TestCode: EPA Method 8015D: Gasoline Range										
Client ID: WW 15	Batch	1D: <b>56</b>	929	F	RunNo: <b>7</b>	3970						
Prep Date: 12/11/2020	Analysis D	ate: 12	2/12/2020	5	SeqNo: 2	609014	Units: mg/k	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	29	5.0	24.90	0	118	61.3	114			S		
Surr: BFB	1000		996.0		104	75.3	105					
Sample ID: <b>2012532-002ams</b>	d SampT	ype: <b>M</b> \$	SD	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е			
Client ID: WW 15	Batch	Batch ID: 56929			RunNo: <b>73970</b>							
Prep Date: 12/11/2020	Analysis D	ate: 12	2/12/2020	5	SeqNo: 2609015 Units: mg/Kg			(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	30	4.8	24.20	0	123	61.3	114	1.67	20	S		
Surr: BFB	1000		968.1		104	75.3	105	0	0			
Sample ID: Ics-56906	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е			
Client ID: LCSS	Batch	1D: <b>56</b>	906	F	RunNo: <b>7</b> :	3970						
Prep Date: 12/10/2020	Analysis D	ate: 12	2/12/2020	5	SeqNo: 2	609029	Units: mg/k	(g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.8	72.5	106					
Surr: BFB	990		1000		99.2	75.3	105					

Sample ID: Ics-56929	SampT	ype: <b>LC</b>	s	Test	TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch	ID: <b>56</b>	929	R	tunNo: <b>7</b> :	3970						
Prep Date: 12/11/2020	12/11/2020 Analysis Date: 12/12/2020 SeqNo: 2609030 Units: mg/Kg											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	72.5	106					
Surr: BFB	990		1000		99.1	75.3	105					

Sample ID: mb-56906	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: PBS	Batch	n ID: <b>56</b>	906	F	RunNo: 7	3970				
Prep Date: 12/10/2020	Analysis D	Date: 12	2/12/2020	S	SeqNo: 2	609031	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.7	75.3	105			

Sample ID: <b>mb-56929</b>	SampType: <b>MBLK</b>	TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 56929	RunNo: <b>73970</b>							
Prep Date: 12/11/2020	Analysis Date: 12/12/2020	SeqNo: <b>2609032</b>	Units: mg/Kg						
Analyte	Result PQL SPK value Si	PK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qu	ıal					

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

2012532 16-Dec-20

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-56929 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 56929 RunNo: 73970

Prep Date: 12/11/2020 Analysis Date: 12/12/2020 SeqNo: 2609032 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 890 1000 88.6 75.3 105

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2012532 16-Dec-20** 

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: 2012532-003ams	SampT	SampType: MS TestCode: EPA Method 8021B: Volatiles												
Client ID: EW 17	Batch	n ID: <b>56</b> 9	929	RunNo: <b>73970</b>										
Prep Date: 12/11/2020	Analysis D	oate: 12	2/12/2020	SeqNo: <b>2609067</b> Units: <b>mg/Kg</b>										
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	0.85	0.025	0.9881	0	85.5	76.3	120							
Toluene	0.88	0.049	0.9881	0.01150	87.9	78.5	120							
Ethylbenzene	0.89	0.049	0.9881	0	89.9	78.1	124							
Xylenes, Total	2.7	0.099	2.964	0	89.5	79.3	125							
Surr: 4-Bromofluorobenzene	0.91		0.9881		92.0	80	120							

Sample ID: 2012532-003amsd	SampType: MSD TestCode: EPA Method 8021B: Volatiles													
Client ID: EW 17	Batch	ID: <b>56</b> 9	929	F	RunNo: <b>7</b> :	3970								
Prep Date: 12/11/2020	Analysis D	ate: 12	e: 12/12/2020 SeqNo: 2609068 Units: mg/Kg											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	0.78	0.024	0.9569	0	81.6	76.3	120	7.84	20					
Toluene	0.83	0.048	0.9569	0.01150	85.3	78.5	120	6.03	20					
Ethylbenzene	0.83	0.048	0.9569	0	87.2	78.1	124	6.35	20					
Xylenes, Total	2.5	0.096	2.871	71 0 87.7 79.3 125 5.23 20										
Surr: 4-Bromofluorobenzene	0.86		0.9569		90.0	80	120	0	0					

Sample ID: LCS-56906	SampT	ype: <b>LC</b>	s	TestCode: EPA Method 8021B: Volatiles										
Client ID: LCSS	Batch	n ID: <b>56</b> 9	906	F	RunNo: <b>7</b> :	3970								
Prep Date: <b>12/10/2020</b>	Analysis D	oate: 12	2/12/2020	SeqNo: 2609081 Units: mg/Kg										
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	0.94	0.025	1.000	0	93.9	80	120							
Toluene	0.98	0.050	1.000	0	97.8	80	120							
Ethylbenzene	0.96	0.050	1.000	0	96.3	80	120							
Xylenes, Total	2.9	0.10	3.000	0										
Surr: 4-Bromofluorobenzene	0.90		1.000		90.1	80	120							

Sample ID: LCS-56929	SampT	ype: <b>LC</b>	S	Tes	8021B: Volat	iles							
Client ID: LCSS	Batcl	n ID: <b>56</b> 9	929	RunNo: <b>73970</b>									
Prep Date: <b>12/11/2020</b>	Analysis D	)ate: 12	2/12/2020	SeqNo: 2609082 Units: mg/Kg									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.98	0.025	1.000	0	97.9	80	120						
Toluene	1.0	0.050	1.000	0	101	80	120						
Ethylbenzene	1.0	0.050	1.000	0	101	80	120						
Xylenes, Total	3.0	0.10	3.000	0	100	80	120						
Surr: 4-Bromofluorobenzene	0.91		1.000		91.1	80	120						

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

2012532 16-Dec-20

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-56906 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: 56906 RunNo: 73970 Prep Date: 12/10/2020 Analysis Date: 12/12/2020 SeqNo: 2609083 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Benzene ND 0.025 Toluene ND 0.050 ND 0.050 Ethylbenzene Xylenes, Total ND 0.10 0.88 1.000 88.1 80 120 Surr: 4-Bromofluorobenzene

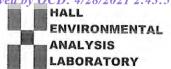
Sample ID: <b>mb-56929</b>	SampT	уре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS	Batcl	n ID: <b>56</b> 9	929	F	RunNo: 7	3970							
Prep Date: 12/11/2020	Analysis D	)ate: 12	2/12/2020	S									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	ND	0.025											
Toluene	ND	0.050											
Ethylbenzene	ND	0.050											
Xylenes, Total	ND	0.10											
Surr: 4-Bromofluorobenzene	0.87		1.000		87.4	80	120						

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

# Sample Log-In Check List

Client Name:	Mewbourn	e Oil Compan	y Work	Order Nun	nber: 201	2532			RcptNo: 1
Received By:	Scott An	derson	12/10/2	2020 8:00:0	0 AM				
Completed By:	Desiree I	Dominguez	12/10/2	2020 10:06:	29 AM		1-	)	
Reviewed By:	JR 12	110/50					المسلسل	3	
Chain of Cus	stody								
1. Is Chain of C	custody comp	olete?			Yes	~	No		Not Present
2. How was the	sample deli	vered?			Cou	rier			
Log In									
<ol><li>Was an atter</li></ol>	npt made to	cool the samp	es?		Yes	<b>V</b>	No		NA 🗌
4. Were all sam	ples received	d at a tempera	ture of >0° C	to 6.0°C	Yes	V	No		NA 🗆
5. Sample(s) in	proper conta	iner(s)?			Yes	<b>V</b>	No		
6. Sufficient san	nple volume	for indicated te	st(s)?		Yes	<b>V</b>	No		
7. Are samples	(except VOA	and ONG) pro	perly preserve	ed?	Yes	V	No		
8. Was preserva	ative added to	bottles?			Yes		No	<b>V</b>	NA 🗆
9. Received at le	east 1 vial wi	th headspace	<1/4" for AQ \	/OA?	Yes		No		NA 🗹
10. Were any sar	mple contain	ers received b	oken?		Yes		No	<b>Y</b>	# of account
11. Does paperwo		ttle labels? ain of custody)			Yes	<b>Y</b>	No		# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices					Yes	<b>V</b>	No		Adjusted?
13. Is it clear wha	t analyses w	ere requested	?		Yes	~	No		
<ol> <li>Were all holdi</li> <li>(If no, notify c</li> </ol>	-				Yes	<b>~</b>	No		Checked by:
Special Handl	ling (if app	olicable)							
15. Was client no	otified of all d	iscrepancies v	vith this order	?	Yes		No		NA 🗹
Person	Notified:			Date	:			_	
By Who				Via:	eM	ail 🗌	Phone [	Fax	☐ In Person
Regard									
	nstructions:						-		
16. Additional re	marks:								
17. Cooler Infor									
Cooler No	_	Condition	Seal Intact	Seal No	Seal D	ate	Signed	Ву	
1 2	0.7 0.1	Good Good							
-	U. 1	3000	-						

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Client:	Hain Mew	bourn	ustody Record	Turn-Around  Standard  Project Nam		y rush	HALL ENVIRONMENT														
	Address				s Rae	ASE	"			lawki	ns N	<b>NE</b> -	Alt	ouqu	erqu		M 87				CD: 4/28/2
Phone	#:			13	296		Tel. 505-345-3975 Fax 505-345-4107  Analysis Request									)212					
email o	r Fax#:			Project Mana	ager:		_	ô					SO4								43:
QA/QC	Package ndard	:	☐ Level 4 (Full Validation)	Lance	e Gren	shaw	TMB's (8021)	O/MR	PCB's		8270SIMS		PO ₄ ,			t/Abser					43:51 PM
Accred		□ Az Co □ Othe	ompliance r	On Ice: □ Yes □ No				GRO / DR	des/8082	d 504.1)	ō	tals	O ₃ , NO ₂ ,		VOA)	m (Preser					
	Time	Matrix	Sample Name	Cooler Temp Container Type and #	O(including CF): Preservative	(°C)	BTEX / MTBE ,	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310	RCRA 8 Metals	CI)F, Br, NO3,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
12/4/20		Soil	WW 14	\	Type Ice				8	Ш	<u>п</u>	ır.	X	8	8	F	-	$\dashv$	+	+	
12/4/20		Soll	WW 15	1	Ju	-001 -00Z	X	X					1					+		+	
12/4/20		Soil	EW 17	1	Iu	- 003	X	X		$\exists$			*						$\pm$	$\dagger$	
1214/20		5611	EW 18	l	J.	- 004	×	1					* ×		F (				$\top$	+	
12/2/20		5011	FL 11804'	l	Ju	- 005	×	X					~		711					$\top$	
12/2/20		Soll	FL 129 Q4'	1	Ice	-006	<	X				1	X								
12/7/20		Soul	EL 128 e 4'	1	su	-007	<	X					a								
1/2/20		Soll	SW 3	(	Ice	-008	X	×					X								
12/7/20		<i>S</i> ₆ ¹ (	NW	1	FLE	-009	×	×					~						1		
Date:	Time:	Relinquis	ed by:	Received	Via:	Date Time	Rer	nark	s:							(A)					
Date: Time: Relinquished by: Res  If necessary, samples submitted to Hall Environmental may be subcontra						Date Time 2.10.70 8:00	EI	nai!	I I Om												Page 175 of 559



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

December 17, 2020

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241

TEL: (575) 393-5905 FAX

RE: CWMS Release OrderNo.: 2012610

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 10 sample(s) on 12/11/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 12/17/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW 2

Project: CWMS Release

Collection Date: 12/8/2020

**Lab ID:** 2012610-001 **Matrix:** SOIL **Received Date:** 12/11/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	<b>VP</b>
Chloride	ND	61	mg/Kg	20	12/15/2020 7:11:35 AM	56992
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	12/12/2020 9:12:41 PM	56944
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/12/2020 9:12:41 PM	56944
Surr: DNOP	86.9	30.4-154	%Rec	1	12/12/2020 9:12:41 PM	56944
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/14/2020 8:22:12 PM	56937
Surr: BFB	87.3	75.3-105	%Rec	1	12/14/2020 8:22:12 PM	56937
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.023	mg/Kg	1	12/14/2020 8:22:12 PM	56937
Toluene	ND	0.047	mg/Kg	1	12/14/2020 8:22:12 PM	56937
Ethylbenzene	ND	0.047	mg/Kg	1	12/14/2020 8:22:12 PM	56937
Xylenes, Total	ND	0.094	mg/Kg	1	12/14/2020 8:22:12 PM	56937
Surr: 4-Bromofluorobenzene	88.0	80-120	%Rec	1	12/14/2020 8:22:12 PM	56937

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

**CWMS** Release

# Analytical Report Lab Order 2012610

Collection Date: 12/8/2020

Date Reported: 12/17/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: SW 4

**Lab ID:** 2012610-002 **Matrix:** SOIL **Received Date:** 12/11/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	: VP
Chloride	ND	60	mg/Kg	20	12/15/2020 7:48:50 AM	56992
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/12/2020 9:22:15 PM	56944
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/12/2020 9:22:15 PM	56944
Surr: DNOP	92.6	30.4-154	%Rec	1	12/12/2020 9:22:15 PM	56944
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/14/2020 8:45:19 PM	56937
Surr: BFB	87.7	75.3-105	%Rec	1	12/14/2020 8:45:19 PM	56937
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	12/14/2020 8:45:19 PM	56937
Toluene	ND	0.049	mg/Kg	1	12/14/2020 8:45:19 PM	56937
Ethylbenzene	ND	0.049	mg/Kg	1	12/14/2020 8:45:19 PM	56937
Xylenes, Total	ND	0.099	mg/Kg	1	12/14/2020 8:45:19 PM	56937
Surr: 4-Bromofluorobenzene	88.7	80-120	%Rec	1	12/14/2020 8:45:19 PM	56937

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

**CWMS** Release

# Analytical Report Lab Order 2012610

Collection Date: 12/9/2020

Date Reported: 12/17/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: NW 3

**Lab ID:** 2012610-003 **Matrix:** SOIL **Received Date:** 12/11/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	VP
Chloride	ND	61	mg/Kg	20	12/15/2020 8:01:15 AM	56992
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst:	BRM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	12/12/2020 9:31:48 PM	56944
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/12/2020 9:31:48 PM	56944
Surr: DNOP	80.0	30.4-154	%Rec	1	12/12/2020 9:31:48 PM	56944
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/14/2020 9:08:23 PM	56937
Surr: BFB	86.7	75.3-105	%Rec	1	12/14/2020 9:08:23 PM	56937
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	12/14/2020 9:08:23 PM	56937
Toluene	ND	0.048	mg/Kg	1	12/14/2020 9:08:23 PM	56937
Ethylbenzene	ND	0.048	mg/Kg	1	12/14/2020 9:08:23 PM	56937
Xylenes, Total	ND	0.096	mg/Kg	1	12/14/2020 9:08:23 PM	56937
Surr: 4-Bromofluorobenzene	87.8	80-120	%Rec	1	12/14/2020 9:08:23 PM	56937

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/17/2020

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: SW 5

**Project:** CWMS Release Collection Date: 12/9/2020

**Lab ID:** 2012610-004 **Matrix:** SOIL **Received Date:** 12/11/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	12/15/2020 8:13:39 AM 56992
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/12/2020 10:09:53 PM 56946
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/12/2020 10:09:53 PM 56946
Surr: DNOP	93.6	30.4-154	%Rec	1	12/12/2020 10:09:53 PM 56946
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/14/2020 9:31:27 PM 56937
Surr: BFB	84.7	75.3-105	%Rec	1	12/14/2020 9:31:27 PM 56937
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	12/14/2020 9:31:27 PM 56937
Toluene	ND	0.049	mg/Kg	1	12/14/2020 9:31:27 PM 56937
Ethylbenzene	ND	0.049	mg/Kg	1	12/14/2020 9:31:27 PM 56937
Xylenes, Total	ND	0.098	mg/Kg	1	12/14/2020 9:31:27 PM 56937
Surr: 4-Bromofluorobenzene	85.7	80-120	%Rec	1	12/14/2020 9:31:27 PM 56937

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

#### **Analytical Report** Lab Order 2012610

Collection Date: 12/9/2020

Date Reported: 12/17/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company **Client Sample ID: NW** 5 **CWMS** Release

2012610-005 Matrix: SOIL Lab ID: Received Date: 12/11/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	91	60	mg/Kg	20	12/15/2020 8:26:03 AM	56992
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/12/2020 10:38:16 PM	И 56946
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/12/2020 10:38:16 PM	И 56946
Surr: DNOP	84.9	30.4-154	%Rec	1	12/12/2020 10:38:16 PM	Л 56946
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/14/2020 9:54:31 PM	56937
Surr: BFB	88.3	75.3-105	%Rec	1	12/14/2020 9:54:31 PM	56937
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	12/14/2020 9:54:31 PM	56937
Toluene	ND	0.048	mg/Kg	1	12/14/2020 9:54:31 PM	56937
Ethylbenzene	ND	0.048	mg/Kg	1	12/14/2020 9:54:31 PM	56937
Xylenes, Total	ND	0.095	mg/Kg	1	12/14/2020 9:54:31 PM	56937
Surr: 4-Bromofluorobenzene	89.1	80-120	%Rec	1	12/14/2020 9:54:31 PM	56937

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

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Date Reported: 12/17/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: SW 7

**Project:** CWMS Release Collection Date: 12/9/2020

**Lab ID:** 2012610-006 **Matrix:** SOIL **Received Date:** 12/11/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	72	59	mg/Kg	20	12/15/2020 9:03:16 AM 56992
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/12/2020 10:47:41 PM 56946
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/12/2020 10:47:41 PM 56946
Surr: DNOP	107	30.4-154	%Rec	1	12/12/2020 10:47:41 PM 56946
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/14/2020 10:40:35 PM 56937
Surr: BFB	86.8	75.3-105	%Rec	1	12/14/2020 10:40:35 PM 56937
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	12/14/2020 10:40:35 PM 56937
Toluene	ND	0.048	mg/Kg	1	12/14/2020 10:40:35 PM 56937
Ethylbenzene	ND	0.048	mg/Kg	1	12/14/2020 10:40:35 PM 56937
Xylenes, Total	ND	0.096	mg/Kg	1	12/14/2020 10:40:35 PM 56937
Surr: 4-Bromofluorobenzene	87.2	80-120	%Rec	1	12/14/2020 10:40:35 PM 56937

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/17/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 12/9/2020

**Lab ID:** 2012610-007 **Matrix:** SOIL **Received Date:** 12/11/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	12/15/2020 9:15:41 AM 56992
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	12/12/2020 10:57:06 PM 56946
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	12/12/2020 10:57:06 PM 56946
Surr: DNOP	85.4	30.4-154	%Rec	1	12/12/2020 10:57:06 PM 56946
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	12/14/2020 11:03:37 PM 56937
Surr: BFB	86.5	75.3-105	%Rec	1	12/14/2020 11:03:37 PM 56937
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: <b>NSB</b>
Benzene	ND	0.023	mg/Kg	1	12/14/2020 11:03:37 PM 56937
Toluene	ND	0.046	mg/Kg	1	12/14/2020 11:03:37 PM 56937
Ethylbenzene	ND	0.046	mg/Kg	1	12/14/2020 11:03:37 PM 56937
Xylenes, Total	ND	0.092	mg/Kg	1	12/14/2020 11:03:37 PM 56937
Surr: 4-Bromofluorobenzene	87.3	80-120	%Rec	1	12/14/2020 11:03:37 PM 56937

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

#### **Analytical Report** Lab Order 2012610

Collection Date: 12/9/2020

Date Reported: 12/17/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company **Client Sample ID: SW 6 CWMS** Release

2012610-008 Matrix: SOIL Lab ID: Received Date: 12/11/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	12/15/2020 9:05:15 PM 57009
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/12/2020 11:06:26 PM 56946
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/12/2020 11:06:26 PM 56946
Surr: DNOP	86.2	30.4-154	%Rec	1	12/12/2020 11:06:26 PM 56946
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/15/2020 10:59:59 AM 56943
Surr: BFB	86.5	75.3-105	%Rec	1	12/15/2020 10:59:59 AM 56943
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	12/15/2020 10:59:59 AM 56943
Toluene	ND	0.047	mg/Kg	1	12/15/2020 10:59:59 AM 56943
Ethylbenzene	ND	0.047	mg/Kg	1	12/15/2020 10:59:59 AM 56943
Xylenes, Total	ND	0.094	mg/Kg	1	12/15/2020 10:59:59 AM 56943
Surr: 4-Bromofluorobenzene	89.3	80-120	%Rec	1	12/15/2020 10:59:59 AM 56943

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

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Date Reported: 12/17/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW 16

Project: CWMS Release

Collection Date: 12/9/2020

**Lab ID:** 2012610-009 **Matrix:** SOIL **Received Date:** 12/11/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	12/15/2020 9:17:40 PM 57009
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	12/12/2020 11:15:45 PM 56946
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/12/2020 11:15:45 PM 56946
Surr: DNOP	89.3	30.4-154	%Rec	1	12/12/2020 11:15:45 PM 56946
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	12/15/2020 12:09:33 PM 56943
Surr: BFB	86.9	75.3-105	%Rec	1	12/15/2020 12:09:33 PM 56943
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: <b>NSB</b>
Benzene	ND	0.023	mg/Kg	1	12/15/2020 12:09:33 PM 56943
Toluene	ND	0.046	mg/Kg	1	12/15/2020 12:09:33 PM 56943
Ethylbenzene	ND	0.046	mg/Kg	1	12/15/2020 12:09:33 PM 56943
Xylenes, Total	ND	0.091	mg/Kg	1	12/15/2020 12:09:33 PM 56943
Surr: 4-Bromofluorobenzene	89.9	80-120	%Rec	1	12/15/2020 12:09:33 PM 56943

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/17/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 12/9/2020

**Lab ID:** 2012610-010 **Matrix:** SOIL **Received Date:** 12/11/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Ba	Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>V</b>	/P
Chloride	ND	60	mg/Kg	20	12/15/2020 9:30:04 PM 57	7009
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>B</b>	3RM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	12/12/2020 11:25:02 PM 56	6946
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/12/2020 11:25:02 PM 56	6946
Surr: DNOP	90.5	30.4-154	%Rec	1	12/12/2020 11:25:02 PM 56	6946
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>N</b>	1SB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/15/2020 4:50:02 PM 56	6943
Surr: BFB	90.4	75.3-105	%Rec	1	12/15/2020 4:50:02 PM 56	6943
EPA METHOD 8021B: VOLATILES					Analyst: <b>N</b>	1SB
Benzene	ND	0.023	mg/Kg	1	12/15/2020 4:50:02 PM 56	6943
Toluene	ND	0.047	mg/Kg	1	12/15/2020 4:50:02 PM 56	6943
Ethylbenzene	ND	0.047	mg/Kg	1	12/15/2020 4:50:02 PM 56	6943
Xylenes, Total	ND	0.093	mg/Kg	1	12/15/2020 4:50:02 PM 56	6943
Surr: 4-Bromofluorobenzene	92.2	80-120	%Rec	1	12/15/2020 4:50:02 PM 56	6943

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

2012610 17-Dec-20

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-56992 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **56992** RunNo: **73996** 

Prep Date: 12/14/2020 Analysis Date: 12/15/2020 SeqNo: 2610650 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-56992 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 56992 RunNo: 73996

Prep Date: 12/14/2020 Analysis Date: 12/15/2020 SeqNo: 2610651 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 93.1 90 110

Sample ID: MB-57009 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57009 RunNo: 74021

Prep Date: 12/15/2020 Analysis Date: 12/15/2020 SeqNo: 2611788 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57009 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57009 RunNo: 74021

Prep Date: 12/15/2020 Analysis Date: 12/15/2020 SeqNo: 2611789 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 95.3 90 110

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# Hall Environmental Analysis Laboratory, Inc.

WO#: **2012610** *17-Dec-20* 

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Project: CWMS R	Release									
Sample ID: LCS-56944	SampTy	/pe: <b>LC</b>	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: LCSS	Batch	ID: <b>56</b> 9	944	F	RunNo: <b>7</b>	3978				
Prep Date: 12/11/2020	Analysis Da	ate: 12	2/12/2020	S	SeqNo: 2	609491	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.9	70	130			
Surr: DNOP	4.1		5.000		81.9	30.4	154			
Sample ID: LCS-56946	SampTy	/pe: <b>LC</b>	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: LCSS	Batch	ID: <b>56</b> 9	946	F	RunNo: <b>7</b>	3978				
Prep Date: 12/11/2020	Analysis Da	ate: 12	2/12/2020	S	SeqNo: 2	609492	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.5	70	130			
Surr: DNOP	4.7		5.000		94.1	30.4	154			
Sample ID: <b>MB-56944</b>	SampTy	/pe: <b>ME</b>	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: PBS	Batch	ID: <b>56</b> 9	944	F	RunNo: <b>7</b>	3978				
Prep Date: 12/11/2020	Analysis Da	ate: 12	2/12/2020	S	SeqNo: 2	609495	Units: mg/k	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		88.9	30.4	154			
Sample ID: <b>MB-56946</b>	SampTy	/pe: <b>ME</b>	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: PBS	Batch	ID: <b>56</b> 9	946	F	RunNo: <b>7</b>	3978				
Prep Date: 12/11/2020	Analysis Da	ate: 12	2/12/2020	S	SeqNo: 2	609496	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.1	30.4	154			
Sample ID: 2012610-004AMS	SampTy	/pe: <b>MS</b>	<u> </u>	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: SW 5	Batch	ID: <b>56</b> 9	946	F	RunNo: <b>7</b>	3978				
Prep Date: 12/11/2020	Analysis Da	ate: 12	2/12/2020	S	SeqNo: 2	609503	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	9.8	48.97	0	112	15	184			

#### Qualifiers:

Surr: DNOP

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

129

30.4

154

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

4.897

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6.3

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2012610** 

17-Dec-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: 2012610-004AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: **SW 5** Batch ID: **56946** RunNo: **73978** 

Prep Date: 12/11/2020 Analysis Date: 12/12/2020 SeqNo: 2609504 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.2	45.87	0	82.2	15	184	36.8	23.9	R
Surr: DNOP	3.7		4.587		81.1	30.4	154	0	0	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: 2012610 17-Dec-20

**Client:** Mewbourne Oil Company

**Project: CWMS** Release

Sample ID: mb-56937 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 56937 RunNo: 74001

Analysis Date: 12/14/2020 SeqNo: 2610915 Prep Date: 12/11/2020 Units: mq/Kq

SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual

Gasoline Range Organics (GRO) NΩ 5.0

Surr: BFB 870 1000 87.3 75.3 105

Sample ID: Ics-56937 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 56937 RunNo: 74001

Prep Date: 12/11/2020 Analysis Date: 12/14/2020 SeqNo: 2610916 Units: mg/Kg

HighLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 24 5.0 25.00 O 96.2 72.5 106 Surr: BFB 990 1000 992 75.3 105

Sample ID: mb-56943 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 56943 RunNo: 74018

Prep Date: 12/11/2020 Analysis Date: 12/15/2020 SeqNo: 2611606 Units: mg/Kg

SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result PQL HighLimit Qual Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 870 1000 87.0 75.3 105

Sample ID: Ics-56943 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 56943 RunNo: 74018

Prep Date: 12/11/2020 Analysis Date: 12/15/2020 SeqNo: 2611607 Units: mg/Kg

SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Result PQL LowLimit Qual Gasoline Range Organics (GRO) 24 5.0 25.00 95.2 72.5 106 Surr: BFB 990 1000 98.5 75.3 105

Sample ID: 2012610-008ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range

Client ID: SW 6 Batch ID: 56943 RunNo: 74018

Prep Date: 12/11/2020 Analysis Date: 12/15/2020 SeqNo: 2611609 Units: mg/Kg

Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 25 4.8 0 61.3 23.99 104 114 Surr: BFB 950 959.7 99.1 75.3 105

TestCode: EPA Method 8015D: Gasoline Range Sample ID: 2012610-008amsd SampType: MSD

Client ID: SW 6 Batch ID: 56943 RunNo: 74018

Prep Date: 12/11/2020 Units: mg/Kg Analysis Date: 12/15/2020 SeqNo: 2611610

PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result LowLimit Qual

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **2012610** 

Qual

17-Dec-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: 2012610-008amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: **SW** 6 Batch ID: **56943** RunNo: **74018** 

Prep Date: 12/11/2020 Analysis Date: 12/15/2020 SeqNo: 2611610 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** 0 61.3 7.56 20 Gasoline Range Organics (GRO) 23 4.9 24.68 93.6 114 Surr: BFB 970 987.2 98.5 75.3 105 0 0

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# Hall Environmental Analysis Laboratory, Inc.

2012610 17-Dec-20

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-56937	SampType	e: MBLK	Test0	Code: <b>EF</b>					
Client ID: PBS	Batch ID	D: <b>56937</b>	Ru	RunNo: <b>74001</b>					
Prep Date: 12/11/2020	Analysis Date	e: <b>12/14/2020</b>	Se	eqNo: <b>2</b> 0	610962	Units: mg/K	(g		
Analyte	Result F	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND 0	0.025							
Toluene	ND 0	0.050							
Ethylbenzene	ND 0	0.050							
Xylenes, Total	ND	0.10							
Surr: 4-Bromofluorobenzene	0.89	1.000		89.4	80	120			
•		1.000				120			=

Sample ID: LCS-56937	Samp1	Гуре: <b>LC</b>	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batcl	h ID: <b>56</b> 9	937	F	RunNo: 7					
Prep Date: 12/11/2020	Analysis [	Date: 12	2/14/2020	8	SeqNo: 2	610963	Units: mg/k	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	0.89		1.000		88.6	80	120			

Sample ID: mb-56943	SampT	уре: МЕ	BLK	Test	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch	n ID: <b>56</b>	943	R	RunNo: <b>74018</b>						
Prep Date: 12/11/2020	Analysis D	Analysis Date: 12/15/2020			SeqNo: 2611651 Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.90		1.000		89.6	80	120				

Sample ID: LCS-56943	SampT	ype: <b>LC</b>	s	Tes	tCode: El	8021B: Volat	iles						
Client ID: LCSS	Batch	tch ID: <b>56943</b> RunNo: <b>74018</b>											
Prep Date: 12/11/2020	Analysis D	sis Date: <b>12/15/2020</b> SeqNo: <b>2611652</b> Un						SeqNo: 2611652 Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	1.0	0.025	1.000	0	100	80	120						
Toluene	1.1	0.050	1.000	0	105	80	120						
Ethylbenzene	1.0	0.050	1.000	0	104	80	120						
Xylenes, Total	3.1	0.10	3.000	0	104	80	120						
Surr: 4-Bromofluorobenzene	0.90		1.000		89.7	80	120						

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

2.9

0.097

2.910

WO#: 2012610

17-Dec-20

**Client:** Mewbourne Oil Company

**Project: CWMS** Release

Xylenes, Total

Sample ID: 2012610-009ams SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: WW 16 RunNo: 74018 Batch ID: 56943 Prep Date: 12/11/2020 Analysis Date: 12/15/2020 SeqNo: 2611655 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Benzene 0.94 0.024 0.9699 0 96.6 76.3 120 Toluene 0.98 0.048 0.9699 0.009927 100 78.5 120 102 78.1 Ethylbenzene 0.99 0.048 0.9699 0 124

0

101

79.3

125

Surr: 4-Bromofluorobenzene 0.89 0.9699 92.1 80 120 Sample ID: 2012610-009amsd SampType: MSD TestCode: EPA Method 8021B: Volatiles Client ID: WW 16 Batch ID: 56943 RunNo: 74018

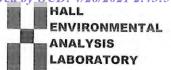
CHERTID. VVVV 10	Dato	1 1D. 30	343	1	turrito. 7	+010				
Prep Date: 12/11/2020	Analysis D	)ate: 12	2/15/2020	S	SeqNo: 20	611656	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.024	0.9785	0	98.5	76.3	120	2.76	20	
Toluene	1.0	0.049	0.9785	0.009927	103	78.5	120	3.54	20	
Ethylbenzene	1.0	0.049	0.9785	0	105	78.1	124	4.55	20	
Xylenes, Total	3.1	0.098	2.935	0	104	79.3	125	3.59	20	
Surr: 4-Bromofluorobenzene	0.91		0.9785		92.6	80	120	0	0	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

# Sample Log-In Check List

Client Name:	Mewbourne O	il Company	Work	Order Num	ber: 201	2610			RcptNo: 1	
Received By:	Cheyenne C	ason	12/11/2	020 8:00:00	) AM					
Completed By:	Desiree Don	ninguez	12/11/2	020 9:05:55	5 AM		TA			
Reviewed By:	Em 121						1.40	3		
Chain of Cu										
1. Is Chain of 0	Custody complete	∋?			Yes	~	No		Not Present	
2. How was the	e sample delivere	ed?			Cou	rier				
<u>Log In</u> 3. Was an atte	mpt made to coo	I the samples	?		Yes	<b>V</b>	No		NA 🗆	
4. Were all sam	nples received at	a temperatur	e of >0°C	to 6.0°C	Yes	<b>V</b>	No		NA 🗆	
5. Sample(s) in	n proper containe	r(s)?			Yes	<b>V</b>	No			
6. Sufficient sar	mple volume for i	ndicated test	(s)?		Yes	<b>V</b>	No			
7. Are samples	(except VOA and	d ONG) prope	erly preserve	ed?	Yes	V	No			
8. Was preserv	ative added to bo	ottles?			Yes		No	<b>V</b>	NA 🗌	
9. Received at I	least 1 vial with h	eadspace <1	/4" for AQ V	OA?	Yes		No		NA 🗹	
10. Were any sa	imple containers	received brok	en?		Yes		No	<b>V</b>	# of preserved	/
	ork match bottle pancies on chain				Yes	<b>V</b>	No		bottles checked for pH:	unless noted)
	correctly identifie		f Custody?		Yes	<b>V</b>	No		Adjusted?	
13. Is it clear wha	at analyses were	requested?			Yes	~	No		/	
	ling times able to customer for auth				Yes	<b>V</b>	No		Checked by:	15/11/5
	lling (if applic							4		
	otified of all discr		this order?	,	Yes		No		NA 🗹	
Persor	n Notified:			Date				_		
By Wh	om:			Via:	eM	ail 🔲	Phone	Fax	In Person	
Regard	ding:									
Client	Instructions:									
16. Additional re	emarks:									
17. Cooler Info	rmation									
Cooler No	- Partie and the same and the s	Condition	Seal Intact	Seal No	Seal D	ate	Signed I	3v		
1		ood					2.31100 1	-,		
2	1.9 G	ood						-		
3		ood								
4	1.9 G	ood								

Page 1 of 1

Cliont		of-Ci	ustody Record	Turn-Around Time:  Standard □ Rush  Project Name:					A	N	AL	YS.	SIS	S L		30		NT.		- 0	
Mailing	Address	s:		cuus	REJEAS	χE		49	01 H								ын М 87	109			. 4/40
73/				Project #:			Tel. 505-345-3975 Fax 505-345-4107										104				
Phone	#:				13296 Analysis Request																
email o	r Fax#:			Project Mana	ager:		5	(0)					SO4			int)					73.0
QA/QC □ Star	Package idard	8	☐ Level 4 (Full Validation)	Lance	Creus	haw	TMB's (8021)	O / MF	PCB's		8270SIMS		PO ₄ ,			1/Abse					747 7.7
Accred	itation:	□ Az Co	ompliance	Sampler: 🗸	al les	ica	] BB	/ DR	082	<del>-</del> -	827		NO ₂ ,			ese					
□ NEL		□ Othe		On Ice:	☑ Yes	[′] □ No	-	RO	es/8	504.1)	5	S			(A)	P.					
□ EDL	(Type)	T		# of Coolers:		e hences (°C)	MTBE	D(G	ticid	thod	831	Meta	NO ₃ ,	(A	n-i-	form					
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type		BTEX / N	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	EDB (Method	PAHs by 8310	RCRA 8 Metals	CIJF, Br,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
12/8/20		Soil	NW Z	1	Ice	-001	X	X					x								
12/8/20		Soil	SW4	l	Iu	-002	X	X					X								
12/9/20		Soil	NW3	t	Iso	- 003	A						X								
12/9/20		Soil	SW5	1	To	-004	X	X					X								
12/9/20		Soil	NW 5	1	Iv	- 005	X	×					×								
2/9/20		Soil	SW7	1	Ig	- 006	2	λ					X								
12/9/20		Soil	NW 4	1	Tre	-007	X	X					×								
12/9/20		Soil	546	1	To	-008	X	X					X					1		-1	
12/9/20		Soil	WW 16	1	Iv	-009	X	X					义								
2/9/20	)	Soil	EW 19	i	Ice	- 010	d	a					X								
					1																
Date: Date:	Time 12 10 10 10 10 10 10 10 10 10 10 10 10 10	Relinquish Relinquish	L Mojor	Received by:	Via:	Date Time 12 20 1 200  Date Time	Rer	ZM == 0 1 == 0	s: ai( = 5)	5	2.	120	5 )	5 : d	P	MG	≥€	tec	her	n V.	con



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

December 22, 2020

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241

TEL: (575) 393-5905

FAX

RE: CWMS Release OrderNo.: 2012767

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 7 sample(s) on 12/16/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **2012767**Date Reported: **12/22/2020** 

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 12/10/2020

**Lab ID:** 2012767-001 **Matrix:** SOIL **Received Date:** 12/16/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	12/21/2020 3:53:55 PM	57126
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/17/2020 9:21:42 PM	57038
Surr: BFB	104	70-130	%Rec	1	12/17/2020 9:21:42 PM	57038
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	12/17/2020 4:25:54 PM	57056
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/17/2020 4:25:54 PM	57056
Surr: DNOP	115	30.4-154	%Rec	1	12/17/2020 4:25:54 PM	57056
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>	ı				Analyst	DJF
Benzene	ND	0.025	mg/Kg	1	12/17/2020 9:21:42 PM	57038
Toluene	ND	0.049	mg/Kg	1	12/17/2020 9:21:42 PM	57038
Ethylbenzene	ND	0.049	mg/Kg	1	12/17/2020 9:21:42 PM	57038
Xylenes, Total	ND	0.098	mg/Kg	1	12/17/2020 9:21:42 PM	57038
Surr: 1,2-Dichloroethane-d4	102	70-130	%Rec	1	12/17/2020 9:21:42 PM	57038
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	12/17/2020 9:21:42 PM	57038
Surr: Dibromofluoromethane	110	70-130	%Rec	1	12/17/2020 9:21:42 PM	57038
Surr: Toluene-d8	95.7	70-130	%Rec	1	12/17/2020 9:21:42 PM	57038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012767**Date Reported: **12/22/2020** 

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: SW 7

**Project:** CWMS Release Collection Date: 12/10/2020

**Lab ID:** 2012767-002 **Matrix:** SOIL **Received Date:** 12/16/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	: VP
Chloride	ND	60	mg/Kg	20	12/21/2020 4:31:10 PM	57126
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/17/2020 9:50:13 PM	57038
Surr: BFB	104	70-130	%Rec	1	12/17/2020 9:50:13 PM	57038
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	12/17/2020 4:35:32 PM	57056
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/17/2020 4:35:32 PM	57056
Surr: DNOP	57.0	30.4-154	%Rec	1	12/17/2020 4:35:32 PM	57056
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>	ı				Analyst	DJF
Benzene	ND	0.024	mg/Kg	1	12/17/2020 9:50:13 PM	57038
Toluene	ND	0.048	mg/Kg	1	12/17/2020 9:50:13 PM	57038
Ethylbenzene	ND	0.048	mg/Kg	1	12/17/2020 9:50:13 PM	57038
Xylenes, Total	ND	0.095	mg/Kg	1	12/17/2020 9:50:13 PM	57038
Surr: 1,2-Dichloroethane-d4	103	70-130	%Rec	1	12/17/2020 9:50:13 PM	57038
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	12/17/2020 9:50:13 PM	57038
Surr: Dibromofluoromethane	111	70-130	%Rec	1	12/17/2020 9:50:13 PM	57038
Surr: Toluene-d8	97.1	70-130	%Rec	1	12/17/2020 9:50:13 PM	57038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012767**Date Reported: **12/22/2020** 

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: SW 8

**Project:** CWMS Release Collection Date: 12/10/2020

**Lab ID:** 2012767-003 **Matrix:** SOIL **Received Date:** 12/16/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	12/21/2020 4:43:35 PM 57126
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/17/2020 10:18:46 PM 57038
Surr: BFB	108	70-130	%Rec	1	12/17/2020 10:18:46 PM 57038
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	8.8	mg/Kg	1	12/17/2020 4:45:07 PM 57056
Motor Oil Range Organics (MRO)	ND	44	mg/Kg	1	12/17/2020 4:45:07 PM 57056
Surr: DNOP	98.6	30.4-154	%Rec	1	12/17/2020 4:45:07 PM 57056
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst: <b>DJF</b>
Benzene	ND	0.025	mg/Kg	1	12/17/2020 10:18:46 PM 57038
Toluene	ND	0.049	mg/Kg	1	12/17/2020 10:18:46 PM 57038
Ethylbenzene	ND	0.049	mg/Kg	1	12/17/2020 10:18:46 PM 57038
Xylenes, Total	ND	0.099	mg/Kg	1	12/17/2020 10:18:46 PM 57038
Surr: 1,2-Dichloroethane-d4	100	70-130	%Rec	1	12/17/2020 10:18:46 PM 57038
Surr: 4-Bromofluorobenzene	104	70-130	%Rec	1	12/17/2020 10:18:46 PM 57038
Surr: Dibromofluoromethane	107	70-130	%Rec	1	12/17/2020 10:18:46 PM 57038
Surr: Toluene-d8	97.8	70-130	%Rec	1	12/17/2020 10:18:46 PM 57038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012767**Date Reported: **12/22/2020** 

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: SW 9

**Project:** CWMS Release Collection Date: 12/10/2020

**Lab ID:** 2012767-004 **Matrix:** SOIL **Received Date:** 12/16/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	61	mg/Kg	20	12/21/2020 4:56:00 PM 57126
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/17/2020 10:47:20 PM 57038
Surr: BFB	106	70-130	%Rec	1	12/17/2020 10:47:20 PM 57038
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	12/17/2020 4:54:38 PM 57056
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/17/2020 4:54:38 PM 57056
Surr: DNOP	74.6	30.4-154	%Rec	1	12/17/2020 4:54:38 PM 57056
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst: <b>DJF</b>
Benzene	ND	0.024	mg/Kg	1	12/17/2020 10:47:20 PM 57038
Toluene	ND	0.048	mg/Kg	1	12/17/2020 10:47:20 PM 57038
Ethylbenzene	ND	0.048	mg/Kg	1	12/17/2020 10:47:20 PM 57038
Xylenes, Total	ND	0.096	mg/Kg	1	12/17/2020 10:47:20 PM 57038
Surr: 1,2-Dichloroethane-d4	106	70-130	%Rec	1	12/17/2020 10:47:20 PM 57038
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	12/17/2020 10:47:20 PM 57038
Surr: Dibromofluoromethane	109	70-130	%Rec	1	12/17/2020 10:47:20 PM 57038
Surr: Toluene-d8	98.0	70-130	%Rec	1	12/17/2020 10:47:20 PM 57038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012767** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/22/2020

CLIENT: Mewbourne Oil Company Client Sample ID: NW 6

**Project:** CWMS Release Collection Date: 12/10/2020

**Lab ID:** 2012767-005 **Matrix:** SOIL **Received Date:** 12/16/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	61	61	mg/Kg	20	12/21/2020 5:08:25 PM 57126
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/17/2020 11:15:56 PM 57038
Surr: BFB	105	70-130	%Rec	1	12/17/2020 11:15:56 PM 57038
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/17/2020 5:04:07 PM 57056
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/17/2020 5:04:07 PM 57056
Surr: DNOP	106	30.4-154	%Rec	1	12/17/2020 5:04:07 PM 57056
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst: <b>DJF</b>
Benzene	ND	0.025	mg/Kg	1	12/17/2020 11:15:56 PM 57038
Toluene	ND	0.049	mg/Kg	1	12/17/2020 11:15:56 PM 57038
Ethylbenzene	ND	0.049	mg/Kg	1	12/17/2020 11:15:56 PM 57038
Xylenes, Total	ND	0.098	mg/Kg	1	12/17/2020 11:15:56 PM 57038
Surr: 1,2-Dichloroethane-d4	99.8	70-130	%Rec	1	12/17/2020 11:15:56 PM 57038
Surr: 4-Bromofluorobenzene	99.5	70-130	%Rec	1	12/17/2020 11:15:56 PM 57038
Surr: Dibromofluoromethane	105	70-130	%Rec	1	12/17/2020 11:15:56 PM 57038
Surr: Toluene-d8	99.9	70-130	%Rec	1	12/17/2020 11:15:56 PM 57038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012767** 

Date Reported: 12/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: NW 7

**Project:** CWMS Release Collection Date: 12/10/2020

**Lab ID:** 2012767-006 **Matrix:** SOIL **Received Date:** 12/16/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	70	60	mg/Kg	20	12/21/2020 5:20:50 PM	57126
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/18/2020 2:07:27 AM	57038
Surr: BFB	104	70-130	%Rec	1	12/18/2020 2:07:27 AM	57038
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	8.7	mg/Kg	1	12/17/2020 5:13:34 PM	57056
Motor Oil Range Organics (MRO)	ND	43	mg/Kg	1	12/17/2020 5:13:34 PM	57056
Surr: DNOP	90.6	30.4-154	%Rec	1	12/17/2020 5:13:34 PM	57056
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	DJF
Benzene	ND	0.025	mg/Kg	1	12/18/2020 2:07:27 AM	57038
Toluene	ND	0.049	mg/Kg	1	12/18/2020 2:07:27 AM	57038
Ethylbenzene	ND	0.049	mg/Kg	1	12/18/2020 2:07:27 AM	57038
Xylenes, Total	ND	0.098	mg/Kg	1	12/18/2020 2:07:27 AM	57038
Surr: 1,2-Dichloroethane-d4	104	70-130	%Rec	1	12/18/2020 2:07:27 AM	57038
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	12/18/2020 2:07:27 AM	57038
Surr: Dibromofluoromethane	107	70-130	%Rec	1	12/18/2020 2:07:27 AM	57038
Surr: Toluene-d8	99.0	70-130	%Rec	1	12/18/2020 2:07:27 AM	57038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012767**Date Reported: **12/22/2020** 

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: NW 8

**Project:** CWMS Release Collection Date: 12/10/2020

**Lab ID:** 2012767-007 **Matrix:** SOIL **Received Date:** 12/16/2020 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	70	60	mg/Kg	20	12/21/2020 6:47:44 PM	57135
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/18/2020 2:35:57 AM	57038
Surr: BFB	99.9	70-130	%Rec	1	12/18/2020 2:35:57 AM	57038
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/17/2020 5:22:59 PM	57056
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/17/2020 5:22:59 PM	57056
Surr: DNOP	109	30.4-154	%Rec	1	12/17/2020 5:22:59 PM	57056
EPA METHOD 8260B: VOLATILES SHORT LIST	Г				Analyst	: DJF
Benzene	ND	0.025	mg/Kg	1	12/18/2020 2:35:57 AM	57038
Toluene	ND	0.049	mg/Kg	1	12/18/2020 2:35:57 AM	57038
Ethylbenzene	ND	0.049	mg/Kg	1	12/18/2020 2:35:57 AM	57038
Xylenes, Total	ND	0.098	mg/Kg	1	12/18/2020 2:35:57 AM	57038
Surr: 1,2-Dichloroethane-d4	101	70-130	%Rec	1	12/18/2020 2:35:57 AM	57038
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	12/18/2020 2:35:57 AM	57038
Surr: Dibromofluoromethane	108	70-130	%Rec	1	12/18/2020 2:35:57 AM	57038
Surr: Toluene-d8	96.9	70-130	%Rec	1	12/18/2020 2:35:57 AM	57038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

2012767 22-Dec-20

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57126 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57126 RunNo: 74164

Prep Date: 12/21/2020 Analysis Date: 12/21/2020 SeqNo: 2617307 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57126 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57126 RunNo: 74164

Prep Date: 12/21/2020 Analysis Date: 12/21/2020 SeqNo: 2617308 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 96.3 90 110

Sample ID: MB-57135 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57135 RunNo: 74164

Prep Date: 12/21/2020 Analysis Date: 12/21/2020 SeqNo: 2617341 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57135 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57135 RunNo: 74164

Prep Date: 12/21/2020 Analysis Date: 12/21/2020 SeqNo: 2617342 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 15 1.5 15.00 0 97.3 90 110

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

2012767 22-Dec-20

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57056 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 57056 RunNo: 74076 Units: mg/Kg Prep Date: 12/16/2020 Analysis Date: 12/17/2020 SeqNo: 2614535 Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50

Surr: DNOP 9.6 10.00 96.3 30.4 154

Sample ID: LCS-57056 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 57056 RunNo: 74109

Prep Date: 12/16/2020 Analysis Date: 12/18/2020 SeqNo: 2615356 Units: mg/Kg

Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 50 10 50.00 99.7 70 130 Surr: DNOP 5.1 5.000 101 30.4 154

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **2012767** 

22-Dec-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-57038 SampType: MBLK TestCode: EPA Method 8260B: Volatiles Short List Client ID: PBS Batch ID: 57038 RunNo: 74108 Prep Date: 12/16/2020 Analysis Date: 12/17/2020 SeqNo: 2615361 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Benzene ND 0.025 Toluene ND 0.050 ND 0.050 Ethylbenzene Xylenes, Total ND 0.10 70 130 Surr: 1,2-Dichloroethane-d4 0.50 0.5000 101 Surr: 4-Bromofluorobenzene 0.50 0.5000 99.7 70 130 Surr: Dibromofluoromethane 0.54 0.5000 108 70 130 Surr: Toluene-d8 0.51 0.5000 101 70 130

Sample ID: Ics-57038	Samp1	Гуре: <b>LC</b>	S4	Tes	tCode: <b>El</b>	PA Method	hod 8260B: Volatiles Short List						
Client ID: BatchQC	Batcl	h ID: <b>57</b> 0	038	F	RunNo: 7	4108							
Prep Date: 12/16/2020	Analysis [	Date: 12	2/17/2020	SeqNo: <b>2615362</b>			Units: mg/k						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	1.1	0.025	1.000	0	107	80	120						
Toluene	1.1	0.050	1.000	0	105	80	120						
Ethylbenzene	1.1	0.050	1.000	0	106	80	120						
Xylenes, Total	3.3	0.10	3.000	0	111	80	120						
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		103	70	130						
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130						
Surr: Dibromofluoromethane	0.54		0.5000		107	70	130						
Surr: Toluene-d8	0.51		0.5000		101	70	130						

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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# Hall Environmental Analysis Laboratory, Inc.

2012767

WO#:

22-Dec-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-57038 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: PBS Batch ID: 57038 RunNo: 74108

Prep Date: 12/16/2020 Analysis Date: 12/17/2020 SeqNo: 2615408 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 530 500.0 107 70 130

Sample ID: Ics-57038 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 57038 RunNo: 74108

520

Prep Date: 12/16/2020 Analysis Date: 12/17/2020 SeqNo: 2615409 Units: mg/Kg

500.0

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 24 5.0 25.00 0 96.4 70 130

104

70

130

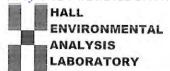
#### Qualifiers:

Surr: BFB

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

# Sample Log-In Check List

Client Name: Mewbourne Oil Company Work Order Num	ber: 2012767		RcptNo: 1
Received By: Desiree Dominguez 12/16/2020 8:00:00	D AM	D	
Completed By: Emily Mocho 12/16/2020 8:30:48	5 AM		
Reviewed By: SGC 17/16/20			
Chain of Custody			
1. Is Chain of Custody complete?	Yes 🔽	No 🗌	Not Present
2. How was the sample delivered?	Courier		
<u>Log In</u>			
3. Was an attempt made to cool the samples?	Yes 🗸	No 🗌	NA 🗌
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes 🗸	No 🗌	NA 🗆
5. Sample(s) in proper container(s)?	Yes 🔽	No 🗆	
6. Sufficient sample volume for indicated test(s)?	Yes 🗸	No 🗌	
7. Are samples (except VOA and ONG) properly preserved?	Yes 🗸	No 🗌	
8. Was preservative added to bottles?	Yes	No 🔽	NA 🗌
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes 🗌	No 🗌	NA 🗹
Were any sample containers received broken?	Yes	No 🔽	# of preserved
Does paperwork match bottle labels?  (Note discrepancies on chain of custody)	Yes 🗹	No 🗆	bottles checked for pH: (<2 or >12 unless noted)
2. Are matrices correctly identified on Chain of Custody?	Yes 🗸	No 🗌	Adjusted?
3. Is it clear what analyses were requested?	Yes 🗸	No 🗌	
4. Were all holding times able to be met?  (If no, notify customer for authorization.)	Yes 🗹	No 🗌	Checked by: 18 12 116
pecial Handling (if applicable)			
15. Was client notified of all discrepancies with this order?	Yes	No 🗆	NA 🗹
Person Notified: Date:			
By Whom: Via:	eMail F	Phone  Fax	☐ In Person
Regarding:			
Client Instructions:			
16. Additional remarks:			
7. Cooler Information			
Cooler No Temp °C Condition Seal Intact Seal No	Seal Date	Signed By	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

December 22, 2020

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241

TEL: (575) 393-5905

FAX

RE: CWMS Release OrderNo.: 2012863

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 6 sample(s) on 12/17/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

Indes

4901 Hawkins NE

Albuquerque, NM 87109

2012863-001

Lab ID:

# Analytical Report Lab Order 2012863

Received Date: 12/17/2020 8:30:00 AM

Date Reported: 12/22/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: SW 10

**Project:** CWMS Release Collection Date: 12/15/2020

Matrix: SOIL

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	12/21/2020 7:49:46 PM 57135
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/19/2020 12:56:51 AM 57077
Surr: BFB	103	70-130	%Rec	1	12/19/2020 12:56:51 AM 57077
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	12/21/2020 10:41:49 AM 57097
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/21/2020 10:41:49 AM 57097
Surr: DNOP	109	30.4-154	%Rec	1	12/21/2020 10:41:49 AM 57097
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst: <b>DJF</b>
Benzene	ND	0.025	mg/Kg	1	12/19/2020 12:56:51 AM 57077
Toluene	ND	0.050	mg/Kg	1	12/19/2020 12:56:51 AM 57077
Ethylbenzene	ND	0.050	mg/Kg	1	12/19/2020 12:56:51 AM 57077
Xylenes, Total	ND	0.099	mg/Kg	1	12/19/2020 12:56:51 AM 57077
Surr: 1,2-Dichloroethane-d4	102	70-130	%Rec	1	12/19/2020 12:56:51 AM 57077
Surr: 4-Bromofluorobenzene	99.6	70-130	%Rec	1	12/19/2020 12:56:51 AM 57077
Surr: Dibromofluoromethane	109	70-130	%Rec	1	12/19/2020 12:56:51 AM 57077
Surr: Toluene-d8	96.5	70-130	%Rec	1	12/19/2020 12:56:51 AM 57077

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 10

Date Reported: 12/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: WW 17

**Project:** CWMS Release Collection Date: 12/15/2020

**Lab ID:** 2012863-002 **Matrix:** SOIL **Received Date:** 12/17/2020 8:30:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	120	61	mg/Kg	20	12/21/2020 8:02:10 PM 57135
EPA METHOD 8015D MOD: GASOLINE RANGE	<b>≣</b>				Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/19/2020 1:34:49 PM 57077
Surr: BFB	102	70-130	%Rec	1	12/19/2020 1:34:49 PM 57077
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/21/2020 10:51:19 AM 57097
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/21/2020 10:51:19 AM 57097
Surr: DNOP	106	30.4-154	%Rec	1	12/21/2020 10:51:19 AM 57097
<b>EPA METHOD 8260B: VOLATILES SHORT LIS</b>	Т				Analyst: <b>DJF</b>
Benzene	ND	0.024	mg/Kg	1	12/19/2020 1:34:49 PM 57077
Toluene	ND	0.048	mg/Kg	1	12/19/2020 1:34:49 PM 57077
Ethylbenzene	ND	0.048	mg/Kg	1	12/19/2020 1:34:49 PM 57077
Xylenes, Total	ND	0.096	mg/Kg	1	12/19/2020 1:34:49 PM 57077
Surr: 1,2-Dichloroethane-d4	101	70-130	%Rec	1	12/19/2020 1:34:49 PM 57077
Surr: 4-Bromofluorobenzene	98.1	70-130	%Rec	1	12/19/2020 1:34:49 PM 57077
Surr: Dibromofluoromethane	103	70-130	%Rec	1	12/19/2020 1:34:49 PM 57077
Surr: Toluene-d8	93.9	70-130	%Rec	1	12/19/2020 1:34:49 PM 57077

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW 18

Project: CWMS Release

Collection Date: 12/15/2020

**Lab ID:** 2012863-003 **Matrix:** SOIL **Received Date:** 12/17/2020 8:30:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	61	mg/Kg	20	12/21/2020 8:14:35 PM	57135
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/19/2020 2:03:22 PM	57077
Surr: BFB	102	70-130	%Rec	1	12/19/2020 2:03:22 PM	57077
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/21/2020 11:00:48 AM	И 57097
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/21/2020 11:00:48 AM	И 57097
Surr: DNOP	106	30.4-154	%Rec	1	12/21/2020 11:00:48 AM	И 57097
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	DJF
Benzene	ND	0.025	mg/Kg	1	12/19/2020 2:03:22 PM	57077
Toluene	ND	0.049	mg/Kg	1	12/19/2020 2:03:22 PM	57077
Ethylbenzene	ND	0.049	mg/Kg	1	12/19/2020 2:03:22 PM	57077
Xylenes, Total	ND	0.099	mg/Kg	1	12/19/2020 2:03:22 PM	57077
Surr: 1,2-Dichloroethane-d4	102	70-130	%Rec	1	12/19/2020 2:03:22 PM	57077
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	1	12/19/2020 2:03:22 PM	57077
Surr: Dibromofluoromethane	105	70-130	%Rec	1	12/19/2020 2:03:22 PM	57077
Surr: Toluene-d8	94.3	70-130	%Rec	1	12/19/2020 2:03:22 PM	57077

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Client Sample ID: EW 20

**Collection Date:** 12/15/2020

Date Reported: 12/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

**Lab ID:** 2012863-004 **Matrix:** SOIL **Received Date:** 12/17/2020 8:30:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	12/21/2020 8:51:50 PM 57135
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/19/2020 4:14:37 AM 57077
Surr: BFB	104	70-130	%Rec	1	12/19/2020 4:14:37 AM 57077
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/21/2020 11:10:21 AM 57097
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/21/2020 11:10:21 AM 57097
Surr: DNOP	94.5	30.4-154	%Rec	1	12/21/2020 11:10:21 AM 57097
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>	-				Analyst: <b>DJF</b>
Benzene	ND	0.025	mg/Kg	1	12/19/2020 4:14:37 AM 57077
Toluene	ND	0.050	mg/Kg	1	12/19/2020 4:14:37 AM 57077
Ethylbenzene	ND	0.050	mg/Kg	1	12/19/2020 4:14:37 AM 57077
Xylenes, Total	ND	0.099	mg/Kg	1	12/19/2020 4:14:37 AM 57077
Surr: 1,2-Dichloroethane-d4	99.5	70-130	%Rec	1	12/19/2020 4:14:37 AM 57077
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	12/19/2020 4:14:37 AM 57077
Surr: Dibromofluoromethane	104	70-130	%Rec	1	12/19/2020 4:14:37 AM 57077
Surr: Toluene-d8	97.5	70-130	%Rec	1	12/19/2020 4:14:37 AM 57077

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/22/2020

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: EW 21

**Project:** CWMS Release Collection Date: 12/15/2020

**Lab ID:** 2012863-005 **Matrix:** SOIL **Received Date:** 12/17/2020 8:30:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	12/21/2020 9:04:15 PM	57135
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/19/2020 4:42:54 AM	57077
Surr: BFB	101	70-130	%Rec	1	12/19/2020 4:42:54 AM	57077
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	12/21/2020 11:19:53 AM	И 57097
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/21/2020 11:19:53 AM	И 57097
Surr: DNOP	98.2	30.4-154	%Rec	1	12/21/2020 11:19:53 AM	Л 57097
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	DJF
Benzene	ND	0.025	mg/Kg	1	12/19/2020 4:42:54 AM	57077
Toluene	ND	0.049	mg/Kg	1	12/19/2020 4:42:54 AM	57077
Ethylbenzene	ND	0.049	mg/Kg	1	12/19/2020 4:42:54 AM	57077
Xylenes, Total	ND	0.099	mg/Kg	1	12/19/2020 4:42:54 AM	57077
Surr: 1,2-Dichloroethane-d4	101	70-130	%Rec	1	12/19/2020 4:42:54 AM	57077
Surr: 4-Bromofluorobenzene	99.8	70-130	%Rec	1	12/19/2020 4:42:54 AM	57077
Surr: Dibromofluoromethane	105	70-130	%Rec	1	12/19/2020 4:42:54 AM	57077
Surr: Toluene-d8	95.6	70-130	%Rec	1	12/19/2020 4:42:54 AM	57077

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 12/22/2020

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: EW 22

**Project:** CWMS Release Collection Date: 12/15/2020

**Lab ID:** 2012863-006 **Matrix:** SOIL **Received Date:** 12/17/2020 8:30:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	12/21/2020 9:16:39 PM	57135
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/19/2020 5:11:10 AM	57077
Surr: BFB	105	70-130	%Rec	1	12/19/2020 5:11:10 AM	57077
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/21/2020 11:29:26 AM	M 57097
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/21/2020 11:29:26 AM	M 57097
Surr: DNOP	100	30.4-154	%Rec	1	12/21/2020 11:29:26 AM	M 57097
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: DJF
Benzene	ND	0.025	mg/Kg	1	12/19/2020 5:11:10 AM	57077
Toluene	ND	0.049	mg/Kg	1	12/19/2020 5:11:10 AM	57077
Ethylbenzene	ND	0.049	mg/Kg	1	12/19/2020 5:11:10 AM	57077
Xylenes, Total	ND	0.099	mg/Kg	1	12/19/2020 5:11:10 AM	57077
Surr: 1,2-Dichloroethane-d4	100	70-130	%Rec	1	12/19/2020 5:11:10 AM	57077
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	12/19/2020 5:11:10 AM	57077
Surr: Dibromofluoromethane	104	70-130	%Rec	1	12/19/2020 5:11:10 AM	57077
Surr: Toluene-d8	97.6	70-130	%Rec	1	12/19/2020 5:11:10 AM	57077

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **2012863** 

22-Dec-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57135 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57135 RunNo: 74164

Prep Date: 12/21/2020 Analysis Date: 12/21/2020 SeqNo: 2617341 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57135 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57135 RunNo: 74164

Prep Date: 12/21/2020 Analysis Date: 12/21/2020 SeqNo: 2617342 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 15 1.5 15.00 0 97.3 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

2012863 22-Dec-20

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: LCS-57097 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 57097 RunNo: 74169

Prep Date: 12/18/2020 Analysis Date: 12/21/2020 SeqNo: 2617542 Units: mg/Kg

PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte Result LowLimit Diesel Range Organics (DRO) 10 0 47 50.00 93.4 70 130

Surr: DNOP 5.5 5.000 110 30.4 154

Sample ID: MB-57097 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 57097 RunNo: 74169

Prep Date: 12/18/2020 Analysis Date: 12/21/2020 SeqNo: 2617545 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO) ND 10

 Motor Oil Range Organics (MRO)
 ND
 50

 Surr: DNOP
 11
 10.00
 110
 30.4
 154

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

2012863 22-Dec-20

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-57077 SampType: MBLK TestCode: EPA Method 8260B: Volatiles Short List Client ID: PBS Batch ID: 57077 RunNo: 74129 Prep Date: 12/17/2020 Analysis Date: 12/18/2020 SeqNo: 2615828 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Benzene ND 0.025 Toluene ND 0.050 ND 0.050 Ethylbenzene Xylenes, Total ND 0.10 105 70 130 Surr: 1,2-Dichloroethane-d4 0.52 0.5000 Surr: 4-Bromofluorobenzene 0.51 0.5000 102 70 130 Surr: Dibromofluoromethane 0.55 0.5000 110 70 130 Surr: Toluene-d8 0.50 0.5000 99.0 70 130

Sample ID: Ics-57077	Samp	npType: LCS4 TestCode: EPA Method 8260B: Volatiles Short List									
Client ID: BatchQC	Batc	h ID: <b>57</b>	077	F	RunNo: 7	4129					
Prep Date: 12/17/2020	Analysis [	Date: 12	2/18/2020	8	SeqNo: 20	615829	Units: mg/k	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.0	0.025	1.000	0	105	80	120				
Toluene	1.0	0.050	1.000	0	103	80	120				
Ethylbenzene	1.0	0.050	1.000	0	104	80	120				
Xylenes, Total	3.3	0.10	3.000	0	109	80	120				
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130				
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.8	70	130				
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130				
Surr: Toluene-d8	0.49		0.5000		97.7	70	130				

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **2012863** 

22-Dec-20

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-57077 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: PBS Batch ID: 57077 RunNo: 74129

Prep Date: 12/17/2020 Analysis Date: 12/18/2020 SeqNo: 2615842 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 530 500.0 106 70 130

Sample ID: Ics-57077 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 57077 RunNo: 74129

520

Prep Date: 12/17/2020 Analysis Date: 12/18/2020 SeqNo: 2615843 Units: mg/Kg

500.0

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 24 5.0 25.00 0 96.4 70 130

104

70

130

#### Qualifiers:

Surr: BFB

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

Sample Log-In Check List

Albuquerque. NM 87109 St TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

Client Name: Mewbourne Oil Company Work O	rder Number: 2012863		RcptNo: 1
Received By: Erin Melendrez 12/17/202	0 8:30:00 AM		
Completed By: Erin Melendrez 12/17/202	0 8:58:10 AM		
Reviewed By: JR 12/17/20			
Chain of Custody			8 Table 2
1. Is Chain of Custody complete?	Yes 🗹	No 🗌	Not Present
2. How was the sample delivered?	Courier		
Log In			
3. Was an attempt made to cool the samples?	Yes 🗹	No 🗌	NA 🗌
4. Were all samples received at a temperature of >0° C to	6.0°C Yes ✓	No 🗌	NA 🗆
5. Sample(s) in proper container(s)?	Yes 🔽	No 🗆	
6. Sufficient sample volume for indicated test(s)?	Yes 🔽	No 🗆	
7. Are samples (except VOA and ONG) properly preserved		No 🗆	
8. Was preservative added to bottles?	Yes	No 🔽	NA 🗆
9. Received at least 1 vial with headspace <1/4" for AQ VC	A? Yes 🗌	No 🗆	NA 🗹
10. Were any sample containers received broken?	Yes 🗆	No 🗹	# of preserved bottles checked
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗆	for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗌	Adjusted?
13. Is it clear what analyses were requested?	Yes 🗹	No 🗆	/
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗸	No 🗆	Checked by: SGL 12/17/20
Special Handling (if applicable)			
15. Was client notified of all discrepancies with this order?	Yes	No 🗆	NA 🗹
Person Notified:	Date:		
By Whom:	Via: eMail P	hone Fax	In Person
Regarding:			
Client Instructions:			
16. Additional remarks:			
17. Cooler Information Cooler No Temp °C Condition Seal Intact 1 2.9 Good	Seal No Seal Date	Signed By	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

January 05, 2021

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 TEL: (575) 393-5905

FAX:

RE: CWMS Release OrderNo.: 2012C33

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 7 sample(s) on 12/29/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 2012C33

Date Reported: 1/5/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 12/16/2020

**Lab ID:** 2012C33-001 **Matrix:** SOIL **Received Date:** 12/29/2020 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS						Analyst: <b>VP</b>
Chloride	ND	60		mg/Kg	20	12/31/2020 12:57:22 AM 57288
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/31/2020 11:50:03 AM 57276
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/31/2020 11:50:03 AM 57276
Surr: DNOP	122	30.4-154		%Rec	1	12/31/2020 11:50:03 AM 57276
EPA METHOD 8015D: GASOLINE RANGE						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9	Н	mg/Kg	1	12/30/2020 6:37:46 PM 57257
Surr: BFB	95.2	75.3-105	Н	%Rec	1	12/30/2020 6:37:46 PM 57257
EPA METHOD 8021B: VOLATILES						Analyst: <b>NSB</b>
Benzene	ND	0.024	Н	mg/Kg	1	12/30/2020 6:37:46 PM 57257
Toluene	ND	0.049	Н	mg/Kg	1	12/30/2020 6:37:46 PM 57257
Ethylbenzene	ND	0.049	Н	mg/Kg	1	12/30/2020 6:37:46 PM 57257
Xylenes, Total	ND	0.097	Н	mg/Kg	1	12/30/2020 6:37:46 PM 57257
Surr: 4-Bromofluorobenzene	114	80-120	Н	%Rec	1	12/30/2020 6:37:46 PM 57257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012C33** 

Date Reported: 1/5/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW 18B

Project: CWMS Release

Collection Date: 12/16/2020

**Lab ID:** 2012C33-002 **Matrix:** SOIL **Received Date:** 12/29/2020 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	ND	60		mg/Kg	20	12/31/2020 1:09:47 AM	57288
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	: mb
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/31/2020 1:02:08 PM	57276
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/31/2020 1:02:08 PM	57276
Surr: DNOP	86.9	30.4-154		%Rec	1	12/31/2020 1:02:08 PM	57276
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	Н	mg/Kg	1	12/30/2020 7:01:20 PM	57257
Surr: BFB	96.5	75.3-105	Н	%Rec	1	12/30/2020 7:01:20 PM	57257
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.025	Н	mg/Kg	1	12/30/2020 7:01:20 PM	57257
Toluene	ND	0.049	Н	mg/Kg	1	12/30/2020 7:01:20 PM	57257
Ethylbenzene	ND	0.049	Н	mg/Kg	1	12/30/2020 7:01:20 PM	57257
Xylenes, Total	ND	0.099	Н	mg/Kg	1	12/30/2020 7:01:20 PM	57257
Surr: 4-Bromofluorobenzene	114	80-120	Н	%Rec	1	12/30/2020 7:01:20 PM	57257

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012C33** 

Date Reported: 1/5/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: WW 22

**Project:** CWMS Release Collection Date: 12/28/2020

**Lab ID:** 2012C33-003 **Matrix:** SOIL **Received Date:** 12/29/2020 7:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	110	60	mg/Kg	20	1/4/2021 9:23:16 AM	57297
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: mb
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	12/31/2020 1:26:08 PM	57276
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	12/31/2020 1:26:08 PM	57276
Surr: DNOP	63.2	30.4-154	%Rec	1	12/31/2020 1:26:08 PM	57276
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/30/2020 9:23:05 PM	57260
Surr: BFB	95.2	75.3-105	%Rec	1	12/30/2020 9:23:05 PM	57260
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	12/30/2020 9:23:05 PM	57260
Toluene	ND	0.050	mg/Kg	1	12/30/2020 9:23:05 PM	57260
Ethylbenzene	ND	0.050	mg/Kg	1	12/30/2020 9:23:05 PM	57260
Xylenes, Total	ND	0.099	mg/Kg	1	12/30/2020 9:23:05 PM	57260
Surr: 4-Bromofluorobenzene	113	80-120	%Rec	1	12/30/2020 9:23:05 PM	57260

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**CLIENT:** Mewbourne Oil Company

### **Analytical Report**

Lab Order **2012C33**Date Reported: **1/5/2021** 

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: EW 23

**Project:** CWMS Release Collection Date: 12/28/2020

**Lab ID:** 2012C33-004 **Matrix:** SOIL **Received Date:** 12/29/2020 7:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	90	60	mg/Kg	20	1/4/2021 10:00:29 AM 57297
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	12/31/2020 1:50:09 PM 57276
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	12/31/2020 1:50:09 PM 57276
Surr: DNOP	68.6	30.4-154	%Rec	1	12/31/2020 1:50:09 PM 57276
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/30/2020 10:33:22 PM 57260
Surr: BFB	95.6	75.3-105	%Rec	1	12/30/2020 10:33:22 PM 57260
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.023	mg/Kg	1	12/30/2020 10:33:22 PM 57260
Toluene	ND	0.047	mg/Kg	1	12/30/2020 10:33:22 PM 57260
Ethylbenzene	ND	0.047	mg/Kg	1	12/30/2020 10:33:22 PM 57260
Xylenes, Total	ND	0.093	mg/Kg	1	12/30/2020 10:33:22 PM 57260
Surr: 4-Bromofluorobenzene	114	80-120	%Rec	1	12/30/2020 10:33:22 PM 57260

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012C33** 

Date Reported: 1/5/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: WW 20

**Project:** CWMS Release Collection Date: 12/28/2020

**Lab ID:** 2012C33-005 **Matrix:** SOIL **Received Date:** 12/29/2020 7:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	1/4/2021 10:37:42 AM 57297
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/31/2020 2:14:12 PM 57276
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/31/2020 2:14:12 PM 57276
Surr: DNOP	69.7	30.4-154	%Rec	1	12/31/2020 2:14:12 PM 57276
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/30/2020 11:44:31 PM 57260
Surr: BFB	95.8	75.3-105	%Rec	1	12/30/2020 11:44:31 PM 57260
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.024	mg/Kg	1	12/30/2020 11:44:31 PM 57260
Toluene	ND	0.048	mg/Kg	1	12/30/2020 11:44:31 PM 57260
Ethylbenzene	ND	0.048	mg/Kg	1	12/30/2020 11:44:31 PM 57260
Xylenes, Total	ND	0.096	mg/Kg	1	12/30/2020 11:44:31 PM 57260
Surr: 4-Bromofluorobenzene	114	80-120	%Rec	1	12/30/2020 11:44:31 PM 57260

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2012C33

Date Reported: 1/5/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: EW 24

**Project:** CWMS Release Collection Date: 12/28/2020

**Lab ID:** 2012C33-006 **Matrix:** SOIL **Received Date:** 12/29/2020 7:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	76	61	mg/Kg	20	1/4/2021 10:50:07 AM 57297
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/31/2020 2:38:14 PM 57276
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/31/2020 2:38:14 PM 57276
Surr: DNOP	76.1	30.4-154	%Rec	1	12/31/2020 2:38:14 PM 57276
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	12/31/2020 12:07:51 AM 57260
Surr: BFB	96.7	75.3-105	%Rec	1	12/31/2020 12:07:51 AM 57260
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.023	mg/Kg	1	12/31/2020 12:07:51 AM 57260
Toluene	ND	0.046	mg/Kg	1	12/31/2020 12:07:51 AM 57260
Ethylbenzene	ND	0.046	mg/Kg	1	12/31/2020 12:07:51 AM 57260
Xylenes, Total	ND	0.092	mg/Kg	1	12/31/2020 12:07:51 AM 57260
Surr: 4-Bromofluorobenzene	114	80-120	%Rec	1	12/31/2020 12:07:51 AM 57260

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012C33** 

Date Reported: 1/5/2021

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: WW 21

**Project:** CWMS Release Collection Date: 12/28/2020

**Lab ID:** 2012C33-007 **Matrix:** SOIL **Received Date:** 12/29/2020 7:35:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: <b>VP</b>
Chloride	ND	60	mg/Kg	20	1/4/2021 11:02:32 AM 57297
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst: <b>mb</b>
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/31/2020 3:02:13 PM 57276
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/31/2020 3:02:13 PM 57276
Surr: DNOP	65.4	30.4-154	%Rec	1	12/31/2020 3:02:13 PM 57276
EPA METHOD 8015D: GASOLINE RANGE					Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/31/2020 12:31:12 AM 57260
Surr: BFB	93.5	75.3-105	%Rec	1	12/31/2020 12:31:12 AM 57260
EPA METHOD 8021B: VOLATILES					Analyst: <b>NSB</b>
Benzene	ND	0.023	mg/Kg	1	12/31/2020 12:31:12 AM 57260
Toluene	ND	0.047	mg/Kg	1	12/31/2020 12:31:12 AM 57260
Ethylbenzene	ND	0.047	mg/Kg	1	12/31/2020 12:31:12 AM 57260
Xylenes, Total	ND	0.093	mg/Kg	1	12/31/2020 12:31:12 AM 57260
Surr: 4-Bromofluorobenzene	110	80-120	%Rec	1	12/31/2020 12:31:12 AM 57260

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2012C33** *05-Jan-21* 

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57288 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57288 RunNo: 74331

Prep Date: 12/30/2020 Analysis Date: 12/30/2020 SeqNo: 2624124 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57288 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57288 RunNo: 74331

Prep Date: 12/30/2020 Analysis Date: 12/30/2020 SeqNo: 2624125 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 93.2 90 110

Sample ID: MB-57297 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57297 RunNo: 74345

Prep Date: 12/31/2020 Analysis Date: 12/31/2020 SeqNo: 2625004 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57297 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57297 RunNo: 74345

Prep Date: 12/31/2020 Analysis Date: 12/31/2020 SeqNo: 2625005 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 94.0 90 110

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: 2012C33 05-Jan-21

**Client:** Mewbourne Oil Company

**Project: CWMS** Release

Sample ID: LCS-57276

Sample ID: MB-57276 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 57276 RunNo: 74362 Prep Date: 12/30/2020 Analysis Date: 12/31/2020 SeqNo: 2625215 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result PQL HighLimit Qual Diesel Range Organics (DRO) ND 10 Motor Oil Range Organics (MRO) ND 50 Surr: DNOP 13 10.00 128 30.4 154

SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 57276 RunNo: 74362 Prep Date: 12/30/2020 Analysis Date: 12/31/2020 SeqNo: 2625217 Units: mg/Kg Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 59 10 68.9 50.00 118 141 Surr: DNOP 6.4 5.000 128 30.4 154

Sample ID: 2012C33-001AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: WW 19B RunNo: 74362 Batch ID: 57276 Prep Date: 12/30/2020 Analysis Date: 12/31/2020 SeqNo: 2625219 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 184 62 10 49.80 0 124 15 Surr: DNOP 6.5 4.980 131 30.4 154

Sample ID: 2012C33-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: WW 19B Batch ID: 57276 RunNo: 74362 Prep Date: 12/30/2020 Analysis Date: 12/31/2020 SeqNo: 2625220 Units: mg/Kg %RPD Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit **RPDLimit** Qual Analyte Diesel Range Organics (DRO) 58 9.9 49.36 0 119 15 184 5.80 23.9 Surr: DNOP 4.936 5.0 101 30.4 154 0 0

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2012C33** *05-Jan-21* 

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-57257 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: **PBS** Batch ID: **57257** RunNo: **74329** 

Prep Date: 12/29/2020 Analysis Date: 12/30/2020 SeqNo: 2623885 Units: mq/Kq

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 970 1000 96.8 75.3 105

Sample ID: Ics-57257 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 57257 RunNo: 74329

Prep Date: 12/29/2020 Analysis Date: 12/30/2020 SeqNo: 2623886 Units: mg/Kg

HighLimit Analyte Result PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 25 5.0 25.00 O 101 72.5 106 Surr: BFB S 1100 1000 107 75.3 105

Sample ID: mb-57260 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 57260 RunNo: 74329

Prep Date: 12/29/2020 Analysis Date: 12/30/2020 SeqNo: 2623909 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

 Surr: BFB
 980
 1000
 98.1
 75.3
 105

Sample ID: Ics-57260 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 57260 RunNo: 74329

Prep Date: 12/29/2020 Analysis Date: 12/30/2020 SeqNo: 2623910 Units: mg/Kg

Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** PQL LowLimit Qual Gasoline Range Organics (GRO) 24 5.0 25.00 96.8 72.5 106 Surr: BFB 1100 1000 105 75.3 105 S

Sample ID: 2012c33-003ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range

Client ID: **WW 22** Batch ID: **57260** RunNo: **74329** 

Prep Date: 12/29/2020 Analysis Date: 12/30/2020 SeqNo: 2623912 Units: mg/Kg

Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 26 4.9 24.37 0 61.3 106 114 S Surr: BFB 1000 974.7 107 75.3 105

Sample ID: 2012c33-003amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: **WW 22** Batch ID: **57260** RunNo: **74329** 

Prep Date: 12/29/2020 Analysis Date: 12/30/2020 SeqNo: 2623913 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

#### Qualifiers:

* Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

2012C33 05-Jan-21

WO#:

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: 2012c33-003amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: **WW 22** Batch ID: **57260** RunNo: **74329** 

Prep Date: 12/29/2020 Analysis Date: 12/30/2020 SegNo: 2623913 Units: mg/Kg

12/20/2020	7 tildiyolo B	u.o. 12	700/2020	_	704110. <u>-</u> 1	020010	ormo. mg/m	9		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	24.20	0	109	61.3	114	1.70	20	
Surr: BFB	1000		968.1		107	75.3	105	0	0	S

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: 2012C33

05-Jan-21

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: <b>mb-57257</b>	SampT	SampType: MBLK TestCode: EPA Metl					8021B: Volat	iles			
Client ID: PBS	Batcl	n ID: <b>57</b> 2	257	F	RunNo: 7						
Prep Date: 12/29/2020	Analysis D	)ate: 12	2/30/2020	S	SeqNo: 2	623937	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120				

Sample ID: LCS-57257	Samp1	Гуре: <b>LC</b>	:S	Tes	8021B: Volat	iles				
Client ID: LCSS	Batc	h ID: <b>57</b> 2	257	F						
Prep Date: 12/29/2020	Analysis [	Date: 12	2/30/2020	8	SeqNo: 20	623942	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.3	80	120			
Toluene	0.94	0.050	1.000	0	94.1	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.8	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Sample ID: mb-57260	SampT	уре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch	n ID: <b>57</b>	260	F	RunNo: 7	4329				
Prep Date: 12/29/2020	Analysis D	ate: 12	2/30/2020	S	SeqNo: 2	623972	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Sample ID: LCS-57260	SampT	ype: <b>LC</b>	S	TestCode: EPA Method 8021B: Volatiles										
Client ID: LCSS	Batcl	n ID: <b>57</b> 2	260	F	RunNo: 7	4329								
Prep Date: 12/29/2020	Analysis D	Date: 12	2/30/2020	SeqNo: <b>2623973</b>			Units: mg/K	(g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	0.94	0.025	1.000	0	94.4	80	120							
Toluene	0.96	0.050	1.000	0	96.5	80	120							
Ethylbenzene	0.96	0.050	1.000	0	96.0	80	120							
Xylenes, Total	2.9	0.10	3.000	0	98.0	80	120							
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120							

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2012C33** 

05-Jan-21

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: 2012c33-004ams SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: EW 23 RunNo: 74329 Batch ID: 57260 Prep Date: 12/29/2020 Analysis Date: 12/30/2020 SeqNo: 2623976 Units: mg/Kg PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Benzene 1.0 0.025 0.9950 0 103 76.3 120 Toluene 1.1 0.050 0.9950 0.007907 107 78.5 120 0.050 109 78.1 Ethylbenzene 1.1 0.9950 0 124 Xylenes, Total 3.3 0.10 2.985 0 110 79.3 125 Surr: 4-Bromofluorobenzene 1.2 0.9950 116 80 120

Sample ID: 2012c33-004amsd	SampT	уре: <b>М</b> S	SD	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: EW 23	Batch	n ID: <b>57</b> 2	260	F	RunNo: 7	4329				
Prep Date: 12/29/2020	Analysis D	oate: 12	2/30/2020	S	SeqNo: 20	623977	Units: mg/K	ίg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9980	0	100	76.3	120	2.27	20	
Toluene	1.1	0.050	0.9980	0.007907	105	78.5	120	1.19	20	
Ethylbenzene	1.1	0.050	0.9980	0	108	78.1	124	0.170	20	
Xylenes, Total	3.3	0.10	2.994	0	111	79.3	125	1.03	20	
Surr: 4-Bromofluorobenzene	1.1		0.9980		114	80	120	0	0	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

# Sample Log-In Check List

Client Name: Mewbourne Oil Company W	ork Order Number: 2012C33	Rcpti	No: 1
Received By: Isaiah Ortiz 12/2	9/2020 7:35:00 AM	I-04	
Completed By: Isaiah Ortiz 12/2	9/2020 8:09:39 AM	INOX	
Reviewed By: &M 12/29/20		,	
Chain of Custody			
1. Is Chain of Custody complete?	Yes 🔽	No Not Present	]
2. How was the sample delivered?	Courier		
Log In			
Was an attempt made to cool the samples?	Yes 🗸	No 🗆 NA 🗆	
Were all samples received at a temperature of >0	°C to 6.0°C Yes	No 🗆 NA 🗆	]
5. Sample(s) in proper container(s)?	Yes 🗹	No 🗆	
6. Sufficient sample volume for indicated test(s)?	Yes 🔽	No 🗌	
7. Are samples (except VOA and ONG) properly pres	_	No 🗌	
8. Was preservative added to bottles?	Yes	No ✓ NA □	]
9. Received at least 1 vial with headspace <1/4" for A	O VOA? Yes	No □ NA ☑	]
10. Were any sample containers received broken?	Yes	No # of preserved	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗸	No hottles checked for pH:	2 or >12 unitess noted)
12. Are matrices correctly identified on Chain of Custo	dy? Yes ✓	No Adjusted?	
13. Is it clear what analyses were requested?	Yes 🗸	No 🗆	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No Checked by	JR 12/29/7
Special Handling (if applicable)			
15. Was client notified of all discrepancies with this o	der? Yes	No 🗆 NA 🖪	
Person Notified:	Date:		
By Whom:	Via: eMail	Phone Fax In Person	
Regarding:			
Client Instructions:			
16. Additional remarks:			
17. Cooler Information			
Cooler No Temp °C Condition Seal In		Signed By	
1 0.8 Good Not Pres 2 1.1 Good Not Pres			

Client:	Hain Mew	of-Ci	ustody Record	Turn-Around  Standard  Project Nam		acy													NT.	.0
	Address				e. Releas		-	49	01 H							tal.co	om M 87	109		D: 4/2
				Project #:			1		el. 50								4107			8/20.
Phone :	#:			13296				I				Α	naly	/sis	Req	uest				21.2
email o	r Fax#:			Project Mana	ager:		E	0					SO4			int)				43:5
QA/QC ☐ Stan	Package idard		☐ Level 4 (Full Validation)	Lance	Creushau	J	TMB's (8021)	RO / MF	PCB's		8270SIMS		PO4,			nt/Abse				43:51 PM
Accredi	itation:	□ Az Co	ompliance	Sampler: L	ronel.	Mojica	] H	/P	3082	£.			NO ₂ ,			ese	9 4			
□ NEL		□ Othe	r	On Ice:	<b>▼</b> Yes	□ No	-	SRO	les/8	1504	0 or	sls			VOA	P.				
II EDL	(Type)	ī		# of Coolers:		3. (±() (°C)	MTBE,	0)00	sticic	thoc	831	Meta	Br, NO ₃ ,	(A)	-im	iforn				
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type		TANK THE	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310	RCRA 8 Metals	CIJF, Br	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)				
12/16/20		Soll	WW 19B	1	Ice	001	X	X					X							
nluleo		Soll	WW 18B	1	Ice.	507	X	×					X							
plesto		Soll	WW 22		Ire	003	x	×					X							
12/28/20		Soil	EW 23	i	Ice	004	X	X					X							
12/28/20		5011	WW 20	1	Tre	005	X	9					×							
12/28/20		Soil	EW 24	1	I10	006	X	×					X							
alrelro		Soil	WW ZI	1	Tue	001	X	X				1	X							
Date:	Time: [9 60] Time: 19 60	Relinquist	el Nortes	Received by:	Via: Via:	Date Time   2/8/10   1800   Date Time    12/19/20   (7/35)		mark	S:											Page 238 of 5



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

January 06, 2021

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241

TEL: (575) 393-5905

FAX

RE: CWMS Release OrderNo.: 2012D30

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/31/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **2012D30** 

Date Reported: 1/6/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: NW10

**Project:** CWMS Release Collection Date: 12/30/2020

**Lab ID:** 2012D30-001 **Matrix:** SOIL **Received Date:** 12/31/2020 9:55:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	:: VP
Chloride	ND	59	mg/Kg	20	1/5/2021 8:07:58 PM	57362
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	:: BRM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	1/5/2021 10:02:03 AM	57320
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	1/5/2021 10:02:03 AM	57320
Surr: DNOP	70.4	30.4-154	%Rec	1	1/5/2021 10:02:03 AM	57320
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/4/2021 2:45:25 PM	57303
Surr: BFB	97.0	75.3-105	%Rec	1	1/4/2021 2:45:25 PM	57303
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	1/4/2021 2:45:25 PM	57303
Toluene	ND	0.049	mg/Kg	1	1/4/2021 2:45:25 PM	57303
Ethylbenzene	ND	0.049	mg/Kg	1	1/4/2021 2:45:25 PM	57303
Xylenes, Total	ND	0.099	mg/Kg	1	1/4/2021 2:45:25 PM	57303
Surr: 4-Bromofluorobenzene	116	80-120	%Rec	1	1/4/2021 2:45:25 PM	57303

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2012D30

Date Reported: 1/6/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: SW11

**Project:** CWMS Release Collection Date: 12/30/2020

**Lab ID:** 2012D30-002 **Matrix:** SOIL **Received Date:** 12/31/2020 9:55:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	:: VP
Chloride	110	60	mg/Kg	20	1/5/2021 8:45:12 PM	57362
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	:: BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	1/5/2021 10:25:49 AM	57320
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/5/2021 10:25:49 AM	57320
Surr: DNOP	74.3	30.4-154	%Rec	1	1/5/2021 10:25:49 AM	57320
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/4/2021 3:55:18 PM	57303
Surr: BFB	94.1	75.3-105	%Rec	1	1/4/2021 3:55:18 PM	57303
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	1/4/2021 3:55:18 PM	57303
Toluene	ND	0.049	mg/Kg	1	1/4/2021 3:55:18 PM	57303
Ethylbenzene	ND	0.049	mg/Kg	1	1/4/2021 3:55:18 PM	57303
Xylenes, Total	ND	0.098	mg/Kg	1	1/4/2021 3:55:18 PM	57303
Surr: 4-Bromofluorobenzene	112	80-120	%Rec	1	1/4/2021 3:55:18 PM	57303

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2012D30** 

Date Reported: 1/6/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: EW25

**Project:** CWMS Release Collection Date: 12/30/2020

**Lab ID:** 2012D30-003 **Matrix:** SOIL **Received Date:** 12/31/2020 9:55:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	1/5/2021 8:57:36 PM	57362
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	1/5/2021 10:49:30 AM	57320
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/5/2021 10:49:30 AM	57320
Surr: DNOP	78.9	30.4-154	%Rec	1	1/5/2021 10:49:30 AM	57320
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/4/2021 4:18:47 PM	57303
Surr: BFB	92.8	75.3-105	%Rec	1	1/4/2021 4:18:47 PM	57303
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	1/4/2021 4:18:47 PM	57303
Toluene	ND	0.049	mg/Kg	1	1/4/2021 4:18:47 PM	57303
Ethylbenzene	ND	0.049	mg/Kg	1	1/4/2021 4:18:47 PM	57303
Xylenes, Total	ND	0.099	mg/Kg	1	1/4/2021 4:18:47 PM	57303
Surr: 4-Bromofluorobenzene	110	80-120	%Rec	1	1/4/2021 4:18:47 PM	57303

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2012D30

Date Reported: 1/6/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 156 @ 4'

Project: CWMS Release

Collection Date: 12/30/2020

**Lab ID:** 2012D30-004 **Matrix:** SOIL **Received Date:** 12/31/2020 9:55:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	:: VP
Chloride	ND	60	mg/Kg	20	1/5/2021 9:10:01 PM	57362
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	:: BRM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	1/5/2021 11:13:15 AM	57320
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/5/2021 11:13:15 AM	57320
Surr: DNOP	69.6	30.4-154	%Rec	1	1/5/2021 11:13:15 AM	57320
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/4/2021 4:42:22 PM	57303
Surr: BFB	90.6	75.3-105	%Rec	1	1/4/2021 4:42:22 PM	57303
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	1/4/2021 4:42:22 PM	57303
Toluene	ND	0.049	mg/Kg	1	1/4/2021 4:42:22 PM	57303
Ethylbenzene	ND	0.049	mg/Kg	1	1/4/2021 4:42:22 PM	57303
Xylenes, Total	ND	0.098	mg/Kg	1	1/4/2021 4:42:22 PM	57303
Surr: 4-Bromofluorobenzene	109	80-120	%Rec	1	1/4/2021 4:42:22 PM	57303

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

ple pH Not In Range
outing Limit Page 4 of 9

Lab Order 2012D30

#### Date Reported: 1/6/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 155 @ 4'

Project: CWMS Release

Collection Date: 12/30/2020

**Lab ID:** 2012D30-005 **Matrix:** SOIL **Received Date:** 12/31/2020 9:55:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	60	mg/Kg	20	1/5/2021 9:22:25 PM	57362
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	1/5/2021 11:37:02 AM	57320
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/5/2021 11:37:02 AM	57320
Surr: DNOP	81.1	30.4-154	%Rec	1	1/5/2021 11:37:02 AM	57320
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/4/2021 5:05:57 PM	57303
Surr: BFB	91.0	75.3-105	%Rec	1	1/4/2021 5:05:57 PM	57303
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	1/4/2021 5:05:57 PM	57303
Toluene	ND	0.050	mg/Kg	1	1/4/2021 5:05:57 PM	57303
Ethylbenzene	ND	0.050	mg/Kg	1	1/4/2021 5:05:57 PM	57303
Xylenes, Total	ND	0.099	mg/Kg	1	1/4/2021 5:05:57 PM	57303
Surr: 4-Bromofluorobenzene	109	80-120	%Rec	1	1/4/2021 5:05:57 PM	57303

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

2012D30 06-Jan-21

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57362 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57362 RunNo: 74410

Prep Date: 1/5/2021 Analysis Date: 1/5/2021 SeqNo: 2627148 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57362 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57362 RunNo: 74410

Prep Date: 1/5/2021 Analysis Date: 1/5/2021 SeqNo: 2627149 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 15 1.5 15.00 0 97.8 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 6 of 9

### Hall Environmental Analysis Laboratory, Inc.

2012D30 06-Jan-21

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: LCS-57320 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 57320 RunNo: 74381

Prep Date: 1/4/2021 Analysis Date: 1/5/2021 SeqNo: 2625833 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Diesel Range Organics (DRO)
 46
 10
 50.00
 0
 91.5
 68.9
 141

 Surr: DNOP
 4.4
 5.000
 88.6
 30.4
 154

Sample ID: MB-57320 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 57320 RunNo: 74381

Prep Date: 1/4/2021 Analysis Date: 1/5/2021 SeqNo: 2625834 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Diesel Range Organics (DRO) ND 10
Motor Oil Range Organics (MRO) ND 50

Surr: DNOP 9.9 10.00 98.7 30.4 154

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 7 of 9

## Hall Environmental Analysis Laboratory, Inc.

2012D30 06-Jan-21

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-57303 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 57303 RunNo: 74360

Prep Date: 1/2/2021 Analysis Date: 1/4/2021 SeqNo: 2625528 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 940 1000 94.3 75.3 105

Sample ID: Ics-57303 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 57303 RunNo: 74360

Prep Date: 1/2/2021 Analysis Date: 1/4/2021 SeqNo: 2625529 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 72.5 Gasoline Range Organics (GRO) 24 5.0 25.00 0 94.7 106 Surr: BFB 1100 1000 105 75.3 105 S

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## Hall Environmental Analysis Laboratory, Inc.

WO#: **2012D30** 

06-Jan-21

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-57303 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: 57303 RunNo: 74360 Prep Date: 1/2/2021 Analysis Date: 1/4/2021 SeqNo: 2625560 Units: mg/Kg Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result

 Benzene
 ND
 0.025

 Toluene
 ND
 0.050

 Ethylbenzene
 ND
 0.050

 Xylenes, Total
 ND
 0.10

Surr: 4-Bromofluorobenzene 1.1 1.000 113 80 120

Sample ID: LCS-57303	SampT	ype: <b>LC</b>	s	Tes	tCode: EI	PA Method	8021B: Volat	tiles			
Client ID: LCSS	Batcl	h ID: <b>57</b> :	303	F	RunNo: 7	4360					
Prep Date: 1/2/2021	Analysis D	Date: 1/	4/2021	SeqNo: <b>2625561</b>			Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.88	0.025	1.000	0	88.2	80	120				
Toluene	0.91	0.050	1.000	0	91.4	80	120				
Ethylbenzene	0.91	0.050	1.000	0	91.3	80	120				
Xylenes, Total	2.8	0.10	3.000	0	92.8	80	120				
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120				

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

# Sample Log-In Check List

Client Name: Mewbourne Oil Company Work	Order Number: 2012D30		RcptNo: 1
Received By: Sean Livingston 12/31/20	020 9:55:00 AM	5-6	get-
Completed By: Isaiah Ortiz 12/31/20	020 10:02:13 AM	S_L	4
Reviewed By: 5 Cal 12/31/20			
Chain of Custody			
1. Is Chain of Custody complete?	Yes 🗸	No 🗌	Not Present
2. How was the sample delivered?	<u>FedEx</u>		
<u>Log In</u>			
3. Was an attempt made to cool the samples?	Yes 🗸	No 🗌	NA 🗆
4. Were all samples received at a temperature of >0° C to	o 6.0°C Yes ✓	No 🗆	NA 🗆
5. Sample(s) in proper container(s)?	Yes 🔽	No 🗀	
6. Sufficient sample volume for indicated test(s)?	Yes 🗸	No 🗆	
7. Are samples (except VOA and ONG) properly preserved	d? Yes ✓	No 🗌	
8. Was preservative added to bottles?	Yes	No 🔽	NA 🗆
9. Received at least 1 vial with headspace <1/4" for AQ VC	DA? Yes 🗌	No 🗆	NA 🗹
10. Were any sample containers received broken?	Yes	No 🗸	# of preserved
<ol> <li>Does paperwork match bottle labels?</li> <li>(Note discrepancies on chain of custody)</li> </ol>	Yes 🗸	No 🗆	bottles checked for pH: (<2 or >12 unless noted)
2. Are matrices correctly identified on Chain of Custody?	Yes 🔽	No 🗌	Adjusted?
3. Is it clear what analyses were requested?	Yes 🗸	No 🗌	1 1-
4. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🗆	Checked by: 12 12 31 2
Special Handling (if applicable)		0	
15. Was client notified of all discrepancies with this order?	Yes 🗔	No 🗌	NA 🗹
Person Notified:	Date:		
By Whom:	Via: eMail Pr	one Fax	☐ In Person
Regarding:			
Client Instructions:			
16. Additional remarks:			
17. Cooler Information Cooler No Temp °C Condition Seal Intact 1 1.8 Good Not Present	Seal No Seal Date	Signed By	

Chain-of-Custody Record  Client:  MENDOUZNE  Mailing Address:				Turn-Around Time:  Standard □ Rush  Project Name:			-	HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com											
				CWMS RELEASE				4901 Hawkins NE - Albuquerque, NM 87109											
				Project #:	CCC	CAGE												09	
Phone #:				13296				Tel. 505-345-3975 Fax 505-345-4107  Analysis Request											
email or Fax#:				Project Manager:				J 6					_					Т	in his
QA/QC Package:  □ Standard □ Level 4 (Full Validation)				Lance Coenshaw				O / MRO)	PCB's		8270SIMS		PO ₄ , SO ₄			Total Coliform (Present/Absent)			
Accreditation:   Az Compliance  Deliance  Other				Sampler: Leared Majica On Ice: ✓ Yes □ No			/ TMB'	.   0	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310 or 8270	RCRA 8 Metals	Br, NO ₃ , NO ₂ ,	/OA)	8270 (Semi-VOA)	(Preser			
□ EDD (Type)			# of Coolers:   Cooler Temp(including CF):   1.8 ±0=1.8 (°C)			MTBF	15D(GF	oliform											
Date T	ime	Matrix	Sample Name	Container Type and #	Preservative Type	2017D 30	BTEX /	TPH:80	8081 P	EDB (A	PAHs t	RCRA	(C) F,	8260 (VOA)	8270 (8	Total C			
12/30/20		Soil	NW 10			00	l x	X		8.			T	111					
2/34/20		501	5W 11	1		007	2 2	1 4					X						ī
2/30/20		Soil	EW25			00:	3 ×	A					a						Γ
1/30/2		Soil	FC 156 84'	-		000	X	a					7						Ī
2/30/20		Soil	EW25 FC 156 @4' FC 155 @4'	· ·		005	X	~		-1			X						
-	_				1		+	-											_
																			Ī
								1 -											_
	ime:	Relinquish	1 11	Received by:	Via:	Date Time 12/30/20 1540	Re	<u> </u> marl	is:										
26	ime:	Relinquish		Received by:	Via:	Date Time 2/31/20 9:55													



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

January 27, 2021

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241

TEL: (575) 393-5905

FAX

RE: CWMS Release OrderNo.: 2101235

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 158 sample(s) on 1/7/2021 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 15, 2021.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 2101235

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL88 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-001 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2500	150	mg/Kg	50	1/9/2021 4:05:13 PM	57412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

Page 1 of 164

Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 2 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-002 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2300	60	mg/Kg	20	1/8/2021 5:57:07 AM	57412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 13 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-003 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: <b>VP</b>
Chloride	3400	150	mg/Kg	50	1/9/2021 4:17:37 PM	57412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

**CLIENT:** Mewbourne Oil Company

**CWMS** Release

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 15 @ 4'

Collection Date: 1/6/2021

**Lab ID:** 2101235-004 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: <b>VP</b>
Chloride	4300	150	mg/Kg	50	1/9/2021 4:30:01 PM	57412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: FL 18 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-005 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	6500	300	mg/Kg	100 1/14/2021 2:05:00 PM	57412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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### **Analytical Report**

Lab Order **2101235** 

Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 23 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-006 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: <b>VP</b>
Chloride	4100	150	mg/Kg	50	1/9/2021 5:19:40 PM	57412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 29 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-007 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	6200	300	mg/Kg	100 1/9/2021 5:32:05 PM	57412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 34 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

Lab ID: 2101235-008 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

 Analyses
 Result
 RL Qual Units
 DF Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Analyst: VP

 Chloride
 2100
 60
 mg/Kg
 20
 1/8/2021 8:01:11 AM
 57412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 35 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-009 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2200	60	mg/Kg	20	1/8/2021 8:13:36 AM	57412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

**CLIENT:** Mewbourne Oil Company

**CWMS** Release

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 39 @ 4'

Collection Date: 1/6/2021

**Lab ID:** 2101235-010 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: <b>VP</b>
Chloride	4100	150	mg/Kg	50	1/9/2021 5:44:29 PM	57412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 40 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-011 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	5000	300	mg/Kg	100 1/9/2021 5:56:54 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 41 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-012 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

 Analyses
 Result
 RL
 Qual
 Units
 DF
 Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Chloride
 3300
 150
 mg/Kg
 50
 1/9/2021 6:09:19 PM
 57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** CWMS Release

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 42 @ 4'

**Collection Date:** 1/6/2021

**Lab ID:** 2101235-013 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4000	150	mg/Kg	50	1/9/2021 6:21:43 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 43 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-014 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4700	150	mg/Kg	50	1/14/2021 2:17:25 PM	1 57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** CWMS Release

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 44 @ 4'

Collection Date: 1/6/2021

**Lab ID:** 2101235-015 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	5700	300	mg/Kg	100 1/9/2021 6:46:32 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** CWMS Release

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 45 @ 4'

Collection Date: 1/6/2021

**Lab ID:** 2101235-016 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	8300	300	mg/Kg	100 1/9/2021 6:58:57 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 46 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-017 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

 Analyses
 Result
 RL
 Qual
 Units
 DF
 Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Chloride
 2900
 150
 mg/Kg
 50
 1/9/2021 7:11:21 PM
 57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### ry, Inc. Date Reported: 1/27/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: FL 49 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-018 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	4900	300	mg/Kg	100 1/9/2021 7:48:35 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 50 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-019 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	6700	300	mg/Kg	100 1/9/2021 8:01:00 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235**Date Reported: **1/27/2021** 

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 51 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-020 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: <b>VP</b>
Chloride	3800	150	mg/Kg	50	1/9/2021 8:13:24 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 52 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-021 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3000	150	mg/Kg	50	1/9/2021 8:25:49 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 53 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-022 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	5900	300	mg/Kg	100 1/9/2021 8:38:14 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Analytical Report
Lab Order 2101235

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 60 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-023 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2900	150	mg/Kg	50	1/9/2021 8:50:39 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 61 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-024 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: <b>VP</b>
Chloride	4200	150	mg/Kg	50	1/9/2021 9:03:04 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 63 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-025 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3100	150	mg/Kg	50	1/9/2021 9:15:28 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: FL 64 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-026 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	4500	300	mg/Kg	100 1/9/2021 9:27:52 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235**Date Reported: **1/27/2021** 

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 69 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-027 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: <b>VP</b>
Chloride	2600	150	mg/Kg	50	1/9/2021 9:40:16 PM	57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: FL 70 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-028 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3000	150	mg/Kg	50	1/9/2021 10:17:29 PM	1 57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 74 @ 4'

 Project:
 CWMS Release
 Collection Date: 1/6/2021

 Lab ID:
 2101235-029
 Matrix: SOIL
 Received Date: 1/7/2021 8:00:00 AM

 Analyses
 Result
 RL
 Qual
 Units
 DF
 Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Chloride
 2500
 150
 mg/Kg
 50
 1/9/2021 10:29:53 PM
 57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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## **Analytical Report**

Lab Order **2101235** 

Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 76 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-030 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3100	150	mg/Kg	50	1/9/2021 10:42:18 PM	1 57421

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 77 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-031 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	5000	150	mg/Kg	50	1/9/2021 10:54:42 PN	M 57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** CWMS Release

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 78 @ 4'

Collection Date: 1/6/2021

**Lab ID:** 2101235-032 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	4200	300	mg/Kg	100 1/9/2021 11:07:07 PM	57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 81 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-033 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	5400	300	mg/Kg	100 1/9/2021 11:19:31 PM	57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 83 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-034 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2400	150	mg/Kg	50	1/9/2021 11:31:56 PM	1 57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 85 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-035 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

 Analyses
 Result
 RL
 Qual
 Units
 DF
 Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Analyst: VP

 Chloride
 3800
 150
 mg/Kg
 50
 1/9/2021 11:44:21 PM
 57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** CWMS Release

## **Analytical Report**

Lab Order **2101235** 

Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 86 @ 4'

Collection Date: 1/6/2021

**Lab ID:** 2101235-036 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3700	150	mg/Kg	50	1/9/2021 11:56:46 PM	A 57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** CWMS Release

### **Analytical Report**

Lab Order **2101235**Date Reported: **1/27/2021** 

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 87 @ 4'

Collection Date: 1/6/2021

**Lab ID:** 2101235-037 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Anal	yst: <b>VP</b>
Chloride	3200	150	mg/Kg	50	1/10/2021 12:09:10	AM 57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 130 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-038 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	230	60	mg/Kg	20	1/8/2021 5:21:05 PM	57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**CLIENT:** Mewbourne Oil Company

## **Analytical Report**

Lab Order **2101235** 

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 127 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-039 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1800	60	mg/Kg	20	1/8/2021 5:33:29 PM	57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 126 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-040 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2300	60	mg/Kg	20	1/8/2021 5:45:53 PM	57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 125 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-041 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3700	150	mg/Kg	50	1/10/2021 12:46:24 A	AM 57426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 124 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-042 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4900	150	mg/Kg	50	1/14/2021 2:29:50 PM	A 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: FL 123 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-043 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4200	150	mg/Kg	50	1/14/2021 2:42:14 PN	A 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 122 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-044 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	2800	150	mg/Kg	50	1/14/2021 11:57:43	AM 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 121 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-045 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	3600	150	mg/Kg	50	1/14/2021 12:10:07 F	PM 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 120 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-046 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1000	150	mg/Kg	50	1/14/2021 4:21:30 PM	1 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 119 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-047 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: <b>VP</b>
Chloride	3200	150	mg/Kg	50	1/15/2021 9:35:34 AM	57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 117 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-048 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3900	150	mg/Kg	50	1/15/2021 9:47:58 AM	A 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 116 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-049 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4700	150	mg/Kg	50	1/14/2021 2:54:39 PM	57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 115 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-050 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4600	150	mg/Kg	50	1/14/2021 3:07:03 PM	A 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 114 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-051 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: <b>VP</b>
Chloride	3600	150	mg/Kg	50	1/14/2021 12:34:56 F	PM 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 113 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-052 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	t: <b>VP</b>
Chloride	4900	300	mg/Kg	100 1/14/2021 3:19:28 PM	57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**CLIENT:** Mewbourne Oil Company

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 112 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-053 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4300	150	mg/Kg	50	1/14/2021 3:56:41 PM	1 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**CLIENT:** Mewbourne Oil Company

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

## Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 111 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-054 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1200	60	mg/Kg	20	1/9/2021 4:06:19 AM	57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 110 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-055 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1100	61	mg/Kg	20	1/9/2021 4:18:43 AM	57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 109 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-056 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2600	150	mg/Kg	50	1/14/2021 12:47:20 P	M 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 108 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-057 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	6200	300	mg/Kg	100 1/14/2021 4:09:06 PM	57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 107 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-058 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	3000	150	mg/Kg	50	1/14/2021 12:59:44 F	PM 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 106 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-059 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2700	150	mg/Kg	50	1/14/2021 1:12:08 PN	A 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 105 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-060 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2200	150	mg/Kg	50	1/14/2021 1:24:33 PM	И 57433

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: EW 26

Project: CWMS Release

Collection Date: 1/4/2021

**Lab ID:** 2101235-061 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	71	60		mg/Kg	20	1/9/2021 6:22:50 AM	57433
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	BRM
Diesel Range Organics (DRO)	ND	9.3	Н	mg/Kg	1	1/21/2021 11:18:16 AM	57643
Motor Oil Range Organics (MRO)	ND	46	Н	mg/Kg	1	1/21/2021 11:18:16 AM	57643
Surr: DNOP	70.8	30.4-154	Н	%Rec	1	1/21/2021 11:18:16 AM	57643
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	Н	mg/Kg	1	1/21/2021 2:30:50 PM	57636
Surr: BFB	105	75.3-105	SH	%Rec	1	1/21/2021 2:30:50 PM	57636
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.024	Н	mg/Kg	1	1/21/2021 2:30:50 PM	57636
Toluene	ND	0.048	Н	mg/Kg	1	1/21/2021 2:30:50 PM	57636
Ethylbenzene	ND	0.048	Н	mg/Kg	1	1/21/2021 2:30:50 PM	57636
Xylenes, Total	ND	0.096	Н	mg/Kg	1	1/21/2021 2:30:50 PM	57636
Surr: 4-Bromofluorobenzene	108	80-120	Н	%Rec	1	1/21/2021 2:30:50 PM	57636

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW 11

Project: CWMS Release

Collection Date: 1/4/2021

**Lab ID:** 2101235-062 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	ND	60		mg/Kg	20	1/10/2021 12:08:50 PM	57441
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	BRM
Diesel Range Organics (DRO)	ND	9.1	Н	mg/Kg	1	1/21/2021 11:41:57 AM	57643
Motor Oil Range Organics (MRO)	ND	45	Н	mg/Kg	1	1/21/2021 11:41:57 AM	57643
Surr: DNOP	92.4	30.4-154	Н	%Rec	1	1/21/2021 11:41:57 AM	57643
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	Н	mg/Kg	1	1/21/2021 2:54:51 PM	57636
Surr: BFB	112	75.3-105	SH	%Rec	1	1/21/2021 2:54:51 PM	57636
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.023	Н	mg/Kg	1	1/21/2021 2:54:51 PM	57636
Toluene	ND	0.047	Н	mg/Kg	1	1/21/2021 2:54:51 PM	57636
Ethylbenzene	ND	0.047	Н	mg/Kg	1	1/21/2021 2:54:51 PM	57636
Xylenes, Total	ND	0.093	Н	mg/Kg	1	1/21/2021 2:54:51 PM	57636
Surr: 4-Bromofluorobenzene	110	80-120	Н	%Rec	1	1/21/2021 2:54:51 PM	57636

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW 12

Project: CWMS Release

Collection Date: 1/4/2021

**Lab ID:** 2101235-063 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	ND	60		mg/Kg	20	1/10/2021 12:46:03 PM	57441
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	BRM
Diesel Range Organics (DRO)	ND	9.4	Н	mg/Kg	1	1/21/2021 12:05:39 PM	57643
Motor Oil Range Organics (MRO)	ND	47	Н	mg/Kg	1	1/21/2021 12:05:39 PM	57643
Surr: DNOP	109	30.4-154	Н	%Rec	1	1/21/2021 12:05:39 PM	57643
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.7	Н	mg/Kg	1	1/21/2021 4:30:44 PM	57636
Surr: BFB	109	75.3-105	SH	%Rec	1	1/21/2021 4:30:44 PM	57636
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.023	Н	mg/Kg	1	1/21/2021 4:30:44 PM	57636
Toluene	ND	0.047	Н	mg/Kg	1	1/21/2021 4:30:44 PM	57636
Ethylbenzene	ND	0.047	Н	mg/Kg	1	1/21/2021 4:30:44 PM	57636
Xylenes, Total	ND	0.093	Н	mg/Kg	1	1/21/2021 4:30:44 PM	57636
Surr: 4-Bromofluorobenzene	109	80-120	Н	%Rec	1	1/21/2021 4:30:44 PM	57636

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW 13

Project: CWMS Release

Collection Date: 1/4/2021

**Lab ID:** 2101235-064 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	:: VP
Chloride	68	61		mg/Kg	20	1/10/2021 1:48:05 PM	57441
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	BRM
Diesel Range Organics (DRO)	ND	9.0	Н	mg/Kg	1	1/21/2021 12:29:18 PM	57643
Motor Oil Range Organics (MRO)	ND	45	Н	mg/Kg	1	1/21/2021 12:29:18 PM	57643
Surr: DNOP	76.1	30.4-154	Н	%Rec	1	1/21/2021 12:29:18 PM	57643
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	Н	mg/Kg	1	1/21/2021 4:54:43 PM	57636
Surr: BFB	105	75.3-105	Н	%Rec	1	1/21/2021 4:54:43 PM	57636
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.024	Н	mg/Kg	1	1/21/2021 4:54:43 PM	57636
Toluene	ND	0.049	Н	mg/Kg	1	1/21/2021 4:54:43 PM	57636
Ethylbenzene	ND	0.049	Н	mg/Kg	1	1/21/2021 4:54:43 PM	57636
Xylenes, Total	ND	0.098	Н	mg/Kg	1	1/21/2021 4:54:43 PM	57636
Surr: 4-Bromofluorobenzene	108	80-120	Н	%Rec	1	1/21/2021 4:54:43 PM	57636

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: NW 14

Project: CWMS Release

Collection Date: 1/4/2021

**Lab ID:** 2101235-065 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	:: VP
Chloride	65	60		mg/Kg	20	1/10/2021 2:00:29 PM	57441
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	:: BRM
Diesel Range Organics (DRO)	ND	9.6	Н	mg/Kg	1	1/21/2021 12:53:03 PM	57643
Motor Oil Range Organics (MRO)	ND	48	Н	mg/Kg	1	1/21/2021 12:53:03 PM	57643
Surr: DNOP	66.7	30.4-154	Н	%Rec	1	1/21/2021 12:53:03 PM	57643
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	Н	mg/Kg	1	1/21/2021 5:18:40 PM	57636
Surr: BFB	107	75.3-105	SH	%Rec	1	1/21/2021 5:18:40 PM	57636
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.025	Н	mg/Kg	1	1/21/2021 5:18:40 PM	57636
Toluene	ND	0.050	Н	mg/Kg	1	1/21/2021 5:18:40 PM	57636
Ethylbenzene	ND	0.050	Н	mg/Kg	1	1/21/2021 5:18:40 PM	57636
Xylenes, Total	ND	0.10	Н	mg/Kg	1	1/21/2021 5:18:40 PM	57636
Surr: 4-Bromofluorobenzene	109	80-120	Н	%Rec	1	1/21/2021 5:18:40 PM	57636

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: SW 11

Project: CWMS Release

Collection Date: 1/4/2021

**Lab ID:** 2101235-066 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: <b>VP</b>
Chloride	ND	60		mg/Kg	20	1/10/2021 2:12:53 PM	57441
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS					Analyst	BRM
Diesel Range Organics (DRO)	ND	9.3	Н	mg/Kg	1	1/21/2021 1:16:50 PM	57643
Motor Oil Range Organics (MRO)	ND	47	Н	mg/Kg	1	1/21/2021 1:16:50 PM	57643
Surr: DNOP	78.4	30.4-154	Н	%Rec	1	1/21/2021 1:16:50 PM	57643
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	Н	mg/Kg	1	1/21/2021 5:42:30 PM	57636
Surr: BFB	106	75.3-105	SH	%Rec	1	1/21/2021 5:42:30 PM	57636
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.025	Н	mg/Kg	1	1/21/2021 5:42:30 PM	57636
Toluene	ND	0.049	Н	mg/Kg	1	1/21/2021 5:42:30 PM	57636
Ethylbenzene	ND	0.049	Н	mg/Kg	1	1/21/2021 5:42:30 PM	57636
Xylenes, Total	ND	0.098	Н	mg/Kg	1	1/21/2021 5:42:30 PM	57636
Surr: 4-Bromofluorobenzene	109	80-120	Н	%Rec	1	1/21/2021 5:42:30 PM	57636

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: SW 13

Project: CWMS Release

Collection Date: 1/4/2021

**Lab ID:** 2101235-067 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: VP
Chloride	ND	60		mg/Kg	20	1/10/2021 2:25:17 PM	57441
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst	BRM
Diesel Range Organics (DRO)	ND	9.5	Н	mg/Kg	1	1/21/2021 1:40:40 PM	57643
Motor Oil Range Organics (MRO)	ND	47	Н	mg/Kg	1	1/21/2021 1:40:40 PM	57643
Surr: DNOP	77.3	30.4-154	Н	%Rec	1	1/21/2021 1:40:40 PM	57643
EPA METHOD 8015D: GASOLINE RANGE						Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.8	Н	mg/Kg	1	1/21/2021 6:06:23 PM	57636
Surr: BFB	104	75.3-105	Н	%Rec	1	1/21/2021 6:06:23 PM	57636
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.024	Н	mg/Kg	1	1/21/2021 6:06:23 PM	57636
Toluene	ND	0.048	Н	mg/Kg	1	1/21/2021 6:06:23 PM	57636
Ethylbenzene	ND	0.048	Н	mg/Kg	1	1/21/2021 6:06:23 PM	57636
Xylenes, Total	ND	0.097	Н	mg/Kg	1	1/21/2021 6:06:23 PM	57636
Surr: 4-Bromofluorobenzene	107	80-120	Н	%Rec	1	1/21/2021 6:06:23 PM	57636

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 157 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-068 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1300	60	mg/Kg	20	1/10/2021 2:37:43 PM	<i>l</i> 57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 158 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-069 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	180	60	mg/Kg	20	1/10/2021 2:50:07 PM	<i>l</i> 57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

Date Reported: 1/27/2021

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: FL 159 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-070 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2300	60	mg/Kg	20	1/10/2021 3:02:32 PM	1 57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 160 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-071 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: <b>VP</b>
Chloride	2700	150	mg/Kg	50	1/11/2021 9:58:10 AM	57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 161 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-072 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2700	150	mg/Kg	50	1/11/2021 10:10:35 A	M 57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 162 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-073 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	210	60	mg/Kg	20	1/10/2021 3:39:45 PM	Л 57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 163 @ 3'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-074 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	ND	60	mg/Kg	20	1/10/2021 4:16:59 PM	<i>l</i> 57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 164 @ 3'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-075 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: <b>VP</b>
Chloride	690	60	mg/Kg	20	1/10/2021 4:29:23 PM	57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 165 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-076 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	ND	60	mg/Kg	20	1/10/2021 4:41:47 PN	A 57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 166 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-077 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	130	60	mg/Kg	20	1/10/2021 4:54:12 PN	1 57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 167 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-078 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	120	60	mg/Kg	20	1/10/2021 5:06:37 PN	1 57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 168 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-079 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	120	60	mg/Kg	20	1/10/2021 5:19:02 PN	<i>I</i> 57441

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 169 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-080 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	91	61	mg/Kg	20	1/11/2021 10:47:48	AM 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 170 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-081 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: <b>VP</b>
Chloride	85	60	mg/Kg	20	1/11/2021 11:25:01 /	AM 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 171 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-082 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	220	60	mg/Kg	20	1/11/2021 12:27:03 F	PM 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### ory, Inc. Date Reported: 1/27/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: FL 172 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-083 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	810	60	mg/Kg	20	1/11/2021 12:39:28 F	PM 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 173 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-084 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	3700	150	mg/Kg	50	1/12/2021 10:28:46 F	PM 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 174 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-085 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	200	60	mg/Kg	20	1/11/2021 1:04:18 PM	A 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 175 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-086 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	610	60	mg/Kg	20	1/11/2021 1:16:42 PM	M 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 176 @ 3'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-087 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: <b>VP</b>
Chloride	1700	60	mg/Kg	20	1/11/2021 1:29:07 PM	57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

Collection Date: 1/6/2021

#### Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 177 @ 4' **Project:** CWMS Release

**Lab ID:** 2101235-088 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: <b>VP</b>
Chloride	2600	150	mg/Kg	50	1/12/2021 10:41:11 [	PM 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Page 88 of 164 Reporting Limit

Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 178 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-089 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1300	60	mg/Kg	20	1/11/2021 1:53:56 PN	A 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 179 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-090 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	900	60	mg/Kg	20	1/11/2021 2:06:21 PM	1 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 180 @ 3'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-091 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	150	60	mg/Kg	20	1/11/2021 2:18:45 PM	A 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 181 @ 3'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-092 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	93	59	mg/Kg	20	1/11/2021 2:56:00 PN	A 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company **Client Sample ID:** FL 182 @ 3'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-093 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	83	60	mg/Kg	20	1/11/2021 3:08:24 PM	A 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 183 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-094 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1100	60	mg/Kg	20	1/11/2021 3:20:49 PM	M 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 184 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-095 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	280	60	mg/Kg	20	1/11/2021 3:33:13 PM	M 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 185 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-096 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1200	61	mg/Kg	20	1/11/2021 3:45:37 PN	A 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**CLIENT:** Mewbourne Oil Company

**Project:** CWMS Release

#### **Analytical Report**

Lab Order **2101235** 

Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 186 @ 3'

Collection Date: 1/6/2021

**Lab ID:** 2101235-097 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	210	61	mg/Kg	20	1/11/2021 3:58:02 PN	A 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 187 @ 3'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-098 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	71	61	mg/Kg	20	1/11/2021 4:10:26 PM	A 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 188 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-099 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	3200	150	mg/Kg	50	1/12/2021 10:53:36 F	PM 57451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 189 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-100 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3900	150	mg/Kg	50	1/12/2021 11:06:00 P	M 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**CLIENT:** Mewbourne Oil Company

## **Analytical Report**

Lab Order **2101235** 

Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 190 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-101 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2400	150	mg/Kg	50	1/12/2021 11:18:25 F	PM 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 191 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-102 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	130	60	mg/Kg	20	1/11/2021 6:39:22 PM	A 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

**CLIENT:** Mewbourne Oil Company

**CWMS** Release

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

# Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 192 @ 4'

Collection Date: 1/6/2021

**Lab ID:** 2101235-103 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	9100	600	mg/Kg	200 1/12/2021 11:30:49 F	PM 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 193 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-104 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	4400	150	mg/Kg	50	1/12/2021 11:43:14 F	PM 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

Date Reported: 1/27/2021

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 194 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-105 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: <b>VP</b>
Chloride	3300	150	mg/Kg	50	1/13/2021 12:20:28	AM 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 195 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-106 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	5200	150	mg/Kg	50	1/13/2021 12:32:53	AM 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 196 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-107 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	420	60	mg/Kg	20	1/11/2021 8:06:13 PN	1 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

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Lab Order 2101235

Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 197 @ 4'

**CWMS** Release Project: Collection Date: 1/6/2021

Lab ID: 2101235-108 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: <b>VP</b>
Chloride	2300	150	mg/Kg	50	1/13/2021 12:45:17	AM 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Page 108 of 164 Reporting Limit

Lab Order 2101235

# Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 198 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-109 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	3700	150	mg/Kg	50	1/13/2021 12:57:41	AM 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

## Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 199 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-110 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	630	60	mg/Kg	20	1/11/2021 8:43:27 PM	1 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 200 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-111 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2300	150	mg/Kg	50	1/13/2021 1:10:06 AM	A 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 201 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-112 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	930	59	mg/Kg	20	1/11/2021 9:08:17 PM	1 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 202 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-113 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1500	61	mg/Kg	20	1/11/2021 9:20:41 PN	A 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 203 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-114 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2200	60	mg/Kg	20	1/11/2021 9:33:05 PM	A 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**CLIENT:** Mewbourne Oil Company

**Project:** CWMS Release

#### **Analytical Report**

Lab Order **2101235** 

Date Reported: 1/27/2021

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 204 @ 4'

Collection Date: 1/6/2021

**Lab ID:** 2101235-115 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	310	60	mg/Kg	20	1/11/2021 9:45:29 PM	M 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 205 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-116 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	1200	60	mg/Kg	20	1/11/2021 10:22:42 F	PM 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 206 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-117 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	150	61	mg/Kg	20	1/11/2021 10:35:06 F	PM 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235 Date Reported: 1/27/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 207 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-118 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: <b>VP</b>
Chloride	300	60	mg/Kg	20	1/11/2021 10:47:31 F	PM 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Page 118 of 164 Reporting Limit

Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 68 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-119 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2200	150	mg/Kg	50	1/13/2021 1:22:31 AN	A 57453

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**Project:** 

**CLIENT:** Mewbourne Oil Company

**CWMS** Release

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 89 @ 4'

Collection Date: 1/6/2021

**Lab ID:** 2101235-120 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2400	150	mg/Kg	50	1/13/2021 1:34:55 AN	1 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 104

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-121 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

 Analyses
 Result
 RL
 Qual
 Units
 DF
 Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Chloride
 3800
 150
 mg/Kg
 50
 1/13/2021 1:47:20 AM
 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

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**CLIENT:** Mewbourne Oil Company

**Analytical Report** 

Lab Order 2101235

Date Reported: 1/27/2021

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 103

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-122 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	t: <b>VP</b>
Chloride	5800	300	mg/Kg	100 1/14/2021 1:27:47 PM	57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 102

 Project:
 CWMS Release
 Collection Date: 1/6/2021

 Lab ID:
 2101235-123
 Matrix: SOIL
 Received Date: 1/7/2021 8:00:00 AM

Analyses Result RL Qual Units DF Date Analyzed Batch

 EPA METHOD 300.0: ANIONS
 KC value
 Chief value
 DE Date Animyzeu
 Baten

 Chloride
 7500
 300
 mg/Kg
 100 1/13/2021 2:12:09 AM
 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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**CLIENT:** Mewbourne Oil Company

**Analytical Report** 

Lab Order 2101235 Date Reported: 1/27/2021

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 101

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-124 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	5600	300	mg/Kg	100 1/13/2021 2:49:22 AM	1 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Page 124 of 164 Reporting Limit

Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 100

**Project: CWMS** Release Collection Date: 1/6/2021 Lab ID: 2101235-125 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

**Analyses** Result **RL Oual Units DF** Date Analyzed **Batch EPA METHOD 300.0: ANIONS** Analyst: VP 50 1/13/2021 3:01:46 AM Chloride 3500 150 mg/Kg 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Page 125 of 164 Reporting Limit

**Project:** 

**CLIENT:** Mewbourne Oil Company

**Analytical Report** 

Lab Order 2101235 Date Reported: 1/27/2021

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: FL 99

**CWMS** Release Collection Date: 1/6/2021

Lab ID: 2101235-126 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

**Analyses** Result **RL Oual Units DF** Date Analyzed **Batch EPA METHOD 300.0: ANIONS** Analyst: VP 200 1/13/2021 3:14:11 AM Chloride 10000 600 mg/Kg 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Page 126 of 164 Reporting Limit

Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 98

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-127 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	5900	300	mg/Kg	100 1/13/2021 3:26:36 AM	57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Chloride

57466

**Analytical Report** 

Lab Order **2101235**Date Reported: **1/27/2021** 

100 1/14/2021 1:40:11 PM

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 97

 Project:
 CWMS Release
 Collection Date: 1/6/2021

 Lab ID:
 2101235-128
 Matrix: SOIL
 Received Date: 1/7/2021 8:00:00 AM

Analyses Result RL Qual Units DF Date Analyzed Batch

EPA METHOD 300.0: ANIONS

Analyst: VP

300

mg/Kg

9000

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 96

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-129 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4300	150	mg/Kg	50	1/13/2021 3:51:26 AM	И 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 95

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-130 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3300	150	mg/Kg	50	1/14/2021 1:52:36 PM	A 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 94

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-131 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

 Analyses
 Result
 RL Qual Units
 DF Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Analyst: VP

 Chloride
 2100
 150
 mg/Kg
 50
 1/13/2021 4:16:16 AM
 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
  - L Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 93

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-132 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	5200	300	mg/Kg	100 1/13/2021 4:28:40 AM	<i>I</i> 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 92 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-133 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	ND	60	mg/Kg	20	1/12/2021 3:57:47 AM	И 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 91 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-134 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	4900	300	mg/Kg	100 1/13/2021 4:41:05 AM	<i>I</i> 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 90 @ 4'

Project: CWMS Release

Collection Date: 1/6/2021

**Lab ID:** 2101235-135 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	72	60	mg/Kg	20	1/12/2021 4:22:37 AM	<i>I</i> 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 132 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-136 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4300	150	mg/Kg	50	1/13/2021 5:18:19 AM	<i>l</i> 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 133 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-137 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	6200	300	mg/Kg	100 1/13/2021 5:30:43 AM	57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 134 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-138 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	380	60	mg/Kg	20	1/12/2021 4:59:50 AM	л 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 135 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-139 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3200	150	mg/Kg	50	1/13/2021 5:43:08 AM	1 57466

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- L Reporting Limit

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Lab Order **2101235** 

# Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 136 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-140 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	7100	300	mg/Kg	100 1/13/2021 4:47:06 PM	A 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

Date Reported: 1/27/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 137 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-141 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1300	60	mg/Kg	20	1/12/2021 7:23:06 PN	M 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 138 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-142 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2300	150	mg/Kg	50	1/14/2021 1:36:58 PN	1 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 139 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-143 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1300	60	mg/Kg	20	1/12/2021 7:47:55 PN	A 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

#### Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 140 @ 4'

**CWMS** Release Project: Collection Date: 1/6/2021

Lab ID: 2101235-144 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1600	60	mg/Kg	20	1/12/2021 8:00:19 PM	<i>I</i> 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Page 144 of 164 Reporting Limit

Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 141 @ 4'

**CWMS** Release Project: Collection Date: 1/6/2021

Lab ID: 2101235-145 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4200	150	mg/Kg	50	1/13/2021 5:36:45 PM	1 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Page 145 of 164 Reporting Limit

Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 142 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-146 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	6300	300	mg/Kg	100 1/13/2021 5:49:09 PM	57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Page 146 of 164 Reporting Limit

Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 143 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-147 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	4100	150	mg/Kg	50	1/13/2021 6:01:34 PM	A 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 144 @ 4'

**CWMS** Release Project: Collection Date: 1/6/2021

Lab ID: 2101235-148 Matrix: SOIL Received Date: 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: <b>VP</b>
Chloride	4000	150	mg/Kg	50	1/13/2021 6:13:59 PM	57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Page 148 of 164 Reporting Limit

Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 145 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-149 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	5900	300	mg/Kg	100 1/13/2021 6:26:23 PM	1 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 146 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-150 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

 Analyses
 Result
 RL Qual Units
 DF Date Analyzed
 Batch

 EPA METHOD 300.0: ANIONS
 Analyst: VP

 Chloride
 6700
 300
 mg/Kg
 100 1/13/2021 6:38:48 PM
 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 147 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-151 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	st: <b>VP</b>
Chloride	8300	300	mg/Kg	100 1/13/2021 6:51:13 PM	<i>I</i> 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

## Hall Environmental Analysis Laboratory, Inc. Date Reported: 1/27/2021

CLIENT: Mewbourne Oil Company Client Sample ID: FL 148 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-152 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	<b>Date Analyzed</b>	Batch
EPA METHOD 300.0: ANIONS					Analys	st: <b>VP</b>
Chloride	2200	150	mg/Kg	50	1/13/2021 7:03:37 PM	57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 149 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-153 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1400	60	mg/Kg	20	1/12/2021 10:16:48 P	M 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 150 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-154 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2400	61	mg/Kg	20	1/12/2021 10:29:12 F	PM 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 151 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-155 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	370	60	mg/Kg	20	1/12/2021 10:41:37 P	M 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order 2101235

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 152 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-156 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2400	150	mg/Kg	50	1/13/2021 7:16:02 PM	57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 153 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-157 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	2300	60	mg/Kg	20	1/12/2021 11:31:17 F	PM 57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab Order **2101235** 

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/27/2021

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 154 @ 4'

**Project:** CWMS Release Collection Date: 1/6/2021

**Lab ID:** 2101235-158 **Matrix:** SOIL **Received Date:** 1/7/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: <b>VP</b>
Chloride	5600	300	mg/Kg	100 1/13/2021 7:28:27 PM	57470

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### **OC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101235** 

27-Jan-21

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57412 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57412 RunNo: 74472

Prep Date: 1/7/2021 Analysis Date: 1/8/2021 SeqNo: 2629134 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57412 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57412 RunNo: 74472

Prep Date: 1/7/2021 Analysis Date: 1/8/2021 SeqNo: 2629135 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 96.7 90 110

Sample ID: MB-57441 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **57441** RunNo: **74509** 

Prep Date: 1/10/2021 Analysis Date: 1/10/2021 SeqNo: 2630317 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57441 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57441 RunNo: 74509

Prep Date: 1/10/2021 Analysis Date: 1/10/2021 SeqNo: 2630318 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 95.0 90 110

Sample ID: MB-57426 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57426 RunNo: 74500

Prep Date: 1/8/2021 Analysis Date: 1/8/2021 SeqNo: 2630787 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57426 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57426 RunNo: 74500

Prep Date: 1/8/2021 Analysis Date: 1/8/2021 SeqNo: 2630788 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 95.6 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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#### **OC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101235 27-Jan-21** 

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57421 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **57421** RunNo: **74500** 

Prep Date: 1/8/2021 Analysis Date: 1/8/2021 SeqNo: 2630817 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57421 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57421 RunNo: 74500

Prep Date: 1/8/2021 Analysis Date: 1/8/2021 SeqNo: 2630818 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 96.6 90 110

Sample ID: MB-57433 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **57433** RunNo: **74500** 

Prep Date: 1/8/2021 Analysis Date: 1/9/2021 SeqNo: 2630849 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57433 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57433 RunNo: 74500

Prep Date: 1/8/2021 Analysis Date: 1/9/2021 SeqNo: 2630850 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 96.5 90 110

Sample ID: MB-57451 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **57451** RunNo: **74537** 

Prep Date: 1/11/2021 Analysis Date: 1/11/2021 SeqNo: 2631337 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57451 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57451 RunNo: 74537

Prep Date: 1/11/2021 Analysis Date: 1/11/2021 SeqNo: 2631338 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chloride 14 1.5 15.00 0 95.7 90 110

Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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#### **OC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101235 27-Jan-21** 

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57453 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57453 RunNo: 74537

Prep Date: 1/11/2021 Analysis Date: 1/11/2021 SeqNo: 2631367 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57453 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57453 RunNo: 74537

Prep Date: 1/11/2021 Analysis Date: 1/11/2021 SeqNo: 2631368 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 15 1.5 15.00 0 96.8 90 110

Sample ID: MB-57466 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **57466** RunNo: **74537** 

Prep Date: 1/11/2021 Analysis Date: 1/11/2021 SeqNo: 2631399 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57466 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57466 RunNo: 74537

Prep Date: 1/11/2021 Analysis Date: 1/11/2021 SeqNo: 2631400 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 15 1.5 15.00 0 97.1 90 110

Sample ID: MB-57470 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: **PBS** Batch ID: **57470** RunNo: **74555** 

Prep Date: 1/11/2021 Analysis Date: 1/12/2021 SeqNo: 2632762 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57470 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57470 RunNo: 74555

Prep Date: 1/11/2021 Analysis Date: 1/12/2021 SeqNo: 2632763 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 96.6 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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## **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

2101235 27-Jan-21

WO#:

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57643	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	ID: <b>57</b>	643	F	RunNo: 7	4757				
Prep Date: 1/20/2021	Analysis D	ate: 1/	21/2021	S	SeqNo: 2	638248	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	30.4	154			
Sample ID: LCS-57643	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	Organics	
				_						
Client ID: LCSS	Batch	ID: <b>57</b>	643	F	RunNo: 7	4757				
Client ID: LCSS Prep Date: 1/20/2021	Batch Analysis D				RunNo: <b>7</b> SeqNo: <b>2</b>		Units: mg/K	ζg		
			21/2021		-		Units: mg/K	K <b>g</b> %RPD	RPDLimit	Qual
Prep Date: 1/20/2021	Analysis D	ate: 1/	21/2021	S	SeqNo: 2	638897	· ·	J	RPDLimit	Qual
Prep Date: <b>1/20/2021</b> Analyte	Analysis D Result	ate: 1/	<b>21/2021</b> SPK value	SPK Ref Val	SeqNo: 26	638897 LowLimit	HighLimit	J	RPDLimit	Qual

· ·	•	• •						•	•	
Client ID: EW 26	Batch	ID: <b>576</b>	643	F	RunNo: 7	4757				
Prep Date: 1/20/2021	Analysis D	ate: 1/	21/2021	S	SeqNo: 20	638899	Units: mg/K	ίg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	33	9.5	47.57	0	70.1	15	184			Н
Surr: DNOP	2.7		4.757		56.4	30.4	154			Н

Sample ID: <b>2101235-061AMSD</b>	SampT	ype: <b>MS</b>	SD	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: EW 26	Batch	ID: <b>57</b>	643	F	RunNo: 7	4757				
Prep Date: 1/20/2021	Analysis D	ate: 1/	21/2021	S	SeqNo: 2	638900	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	31	9.4	46.77	0	67.2	15	184	5.87	23.9	Н
Surr: DNOP	2.6		4.677		56.1	30.4	154	0	0	Н

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### **QC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101235** 

27-Jan-21

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-57636 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 57636 RunNo: 74760

Prep Date: 1/20/2021 Analysis Date: 1/21/2021 SeqNo: 2638510 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 1000 1000 101 75.3 105

Sample ID: Ics-57636 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 57636 RunNo: 74760

Prep Date: 1/20/2021 Analysis Date: 1/21/2021 SeqNo: 2638511 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 80 Gasoline Range Organics (GRO) 25 5.0 25.00 0 99.0 120 Surr: BFB 1100 1000 75.3 105 S 112

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

1.1

WO#: **2101235** 

27-Jan-21

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Surr: 4-Bromofluorobenzene

Sample ID: mb-57636 SampType: MBLK TestCode: EPA Method 8021B: Volatiles PBS Client ID: Batch ID: 57636 RunNo: 74760 Units: mg/Kg Prep Date: 1/20/2021 Analysis Date: 1/21/2021 SeqNo: 2638527 PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Benzene ND 0.025 Toluene ND 0.050 ND 0.050 Ethylbenzene Xylenes, Total ND 0.10

107

80

120

Sample ID: LCS-57636 SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS Batch ID: 57636 RunNo: 74760 Units: mg/Kg Prep Date: Analysis Date: 1/21/2021 SeqNo: 2638528 1/20/2021 PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0.025 1.000 0 97.0 80 120 0.97 Benzene Toluene 0.99 0.050 1.000 0 99.2 80 120 0.98 0.050 0 98.4 80 120 Ethylbenzene 1.000 2.9 0.10 3.000 0 98.1 80 120 Xylenes, Total 109 Surr: 4-Bromofluorobenzene 1.1 1.000 80 120

1.000

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

## Sample Log-In Check List

Client Name:	Mewbourn	e Oil Company	Work	Order Num	ber: 21012	35		RcptNo: 1
Received By:	Sean Livi	ingston	1/7/202	1 8:00:00 A	M		5-6	not
Completed By:	Erin Mele	endrez	1/7/202	1 8:54:13 A	M			
Reviewed By:	SEC	1/7/21	IO					
Chain of Cust								
1. Is Chain of Cu	istody comp	olete?			Yes S		No 🗆	Not Present
2. How was the s	sample deliv	vered?			Courie			
Log In								
3. Was an attem	pt made to	cool the sample	s?		Yes 🕨		No 🗆	NA 🗆
4. Were all samp	les received	d at a temperati	ire of >0° C	to 6.0°C	Yes 💌	•	No 🗆	NA 🗀
5. Sample(s) in p	roper conta	iner(s)?			Yes 🛂		No 🗆	
6. Sufficient samp	ole volume f	for indicated tes	t(s)?		Yes 🔽	•]	No 🗌	
7. Are samples (e	except VOA	and ONG) prop	erly preserve	ed?	Yes 🗸	]	No 🗌	
8. Was preservat					Yes [		No 🔽	NA 🗆
9. Received at lea	ast 1 vial wit	th headspace <	1/4" for AQ \	OA?	Yes 🗌	]	No 🗌	NA 🗹
10. Were any sam					Yes -		No 🗸	
								# of preserved bottles checked
11. Does paperwor					Yes 🗸	]	No 🗌	for pH:
(Note discrepai						1		(<2 or >12 unless noted) Adjusted?
2. Are matrices co			of Custody?		Yes 🔽		No 📙	Adjusted
3, Is it clear what					Yes 🔽		No 🗌	06-1-1-1-1-1-1
<ol> <li>Were all holdin (If no, notify cur</li> </ol>					Yes 🗸	]	No 🗌	Checked by: 1/1/7/2/
							1.	
pecial Handli							-	
15, Was client not	ified of all di	iscrepancies wi	th this order?	·	Yes		No 🗌	NA 🗹
Person N	Notified:			Date:				
By Whor	m:			Via:	eMail		Phone Fax	☐ In Person
Regardin	ng:							
Client Ins	structions:							-
16. Additional rem	narks:							
17. Cooler Inform	nation							
Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date		Signed By	
1	1.6	Good			JULI DUIL		-igned Dj	
2	2.1	Good					and the second	
3	0.7	Good		1				

C	hain	-of-Cu	ustoc	dy Rec	ord	Turn-Aroun	d Time:				6	7-7											eive
Client:	VEIN	BOUR	111-			☐ Standar	d □ Rusi	1											NN				
	-1000	00-46	100			Project Nan		•		1		<u>a-</u>							ВО	KA	IIC		A 0C
Mailing	Address	s:				0111	45 R	1							hallen								): 4/
						Project #:	Y) K	wase.									-		IM 87				28/2
Phone	ш.						3296				Te	el. 50	5-345	-397					-4107	Market To	1000	100 0 5	02
email o						Project Man									Ana	ysis 	Keq				-	144	2:43
	Package:					Troject Man	iagei.			)21)	/MRO)	တ	1.	ام	SO ₄			sent					37
☐ Star			□ Leve	el 4 (Full V	alidation)	harc	e Clen	Show		s (80	N	PCB's		2	PO ₄			t/Abs					PM
Accred	itation:	□ Az Co	mpliand	e		0 1		Loica		TMB's (8021)	/ DRO		=	SZ/USIMS	NO ₂ ,			Coliform (Present/Absent)					
□ NEL		□ Other				On Ice:	☑Yes	□ No	15		8	Pesticides/8082	8	5			(A)	P.					
	(Type)	1				# of Coolers			(90)	MTBE	9)0	icide	por		NO S	12	)-i-	orn.				-1	
						Cooler Tem	P(Including CF): See	remarks	(°C)	_	015	est	(Method	à	ĕ B	0	Sen	Jij C					
	Time Matrix Sample Name					Container	Preservative	HEAL No.		BTEX	TPH:8015D(GRO		EDB (I	PARS by 6310	CO F, Br, NO ₃ ,	8260 (VOA)	8270 (Semi-VOA)	Total C					
Date	Time Matrix Sample Name					Type and #	Туре	2101235		BT		8		2 6	z (3)	82	82	은		_			Ш
16/21		Soil	FL.	88 €	4'	1	Tu	-001		X	X				X							-	
1/6/21		Soil	FL.	20	4'	1	Tee	-002		ox	×				1								
1/4/21		Soil	FL	13 €	4'	1	Tea	-003		X	X				4								
1/6/21		Soil	FL	15 e	4'	1	ICE	-004		×	x				×								
1/6/21		Soil	FL	18 6	D 41'	1	Tee	-005		X	4				1								$\top$
16/21		Soil	FL	23	04'	1	Fee	-006		X	9				1								
1/6/25		Soil	FL	29	A H	1	Ice	-007		X	1				4								
ileles		Soil	FL	34	a H'	1	Tel	-008		X	1				A								$\top$
1/6/21		Soil	FZ.	35	04'	1	Ice	-009		4	4				a							T	
16/21		Soil	FL	39	041		Too	-010		×	1				a								
ilalei	6 Sila 40 PIL				€4'	1	Ino	-011		X	X				4								$\Box$
16/21	21 Soil FL 41 64					1	Top	-012		×	×				a								
Date:						Received by:	Via:	Date Time	9	Rem	arks	3:		1 6	کوچیم	Me	. 1		0.6	<u> </u>	ata	1.	2412
1 <i>(32)</i> Date:	te: Time: Relinquished by:					Pagainag hi	W _{ia:}		(CD)	re	220	e	nal			_	τ.	0 1	IN (	0 '	e (ec	ne	2000
Jaic.	ate:   Time:   Relinquished by:					Received by		1 .		plea	se	5	old	fr	٠.	TPF	1 2	\$	BTE	X			Puse 417 o
1/6/28	If necessary, samples submitted to Hall Environmental may be sub-					Courier	1/7/21 8:0	00	1.4	, ±0	=1.	Coc	2.	170	=2	·10c	0.	チュ	o =	0.7	PPC		

C	hain	-of-Cı	ustoc	dy Re	cord	Turn-Around	Time:			1												ceive
Client:	MEL	VBOW	DAJE			Standard	d □ Rus	h												IEN		
	0.00	VI)OUV				Project Nam														RAT	OF	SA 5
Mailing	Address	3:				01.11	10 0		_					ww.h								): <i>4</i> /
		-				Project #:	15 RE	LEAS	<u>E</u>	-				ns NE						09		28/2
Dhana	и.						296				Te	el. 50	5-34	5-397				_	4107		CHARLES OF THE PARTY OF THE PAR	02
Phone a										Name of		dk.			Anal	/SIS	Req			de la company		2:4
	Package:					Project Mana	ager:			(8021)	/MRO)	S			SO			ent)				3::51
□ Stan				el 4 (Ful	l Validation)	har	ce Cren	· el		(80	W /	PCB's		ĬŠ.	PO ₄ ,			/Abs				PM
Accredi		□ Az Co			i validation)	- 1		Mai	<u>سر</u>	TMB's	DRO	82 F		8270SIMS	NO ₂ , F			(Present/Absent)				
□ NEL		□ Other				On Ice:	world ■Yes	□ No	<del></del>	F/	~	8081 Pesticides/8082	EDB (Method 504.1)	능 .			F	Pre				
□ EDD	(Type)					# of Coolers:				HE.	(GR	ide	od 5	510	NO ₃ ,		9					
						Cooler Temp	(including CF): Se	e cenar	(°C)	M	TPH:8015D(GRO	estic	leth	PAHs by 8310 or	CI)F, Br, NO ₃ ,	8260 (VOA)	(Semi-VOA)	Coliform				
						Container	Preservative	HEA	L No	X	88:	1 P	<u>§</u>	d sh		0	0 (S					
Date	Time Matrix Sample Name					Type and #	Туре	21012		BTEX	TP	808		A P		826	8270	Total				
1/6/21		Soil	FI	42	@ 4'	/	Fre	-013		X	×				X							
16/21		Soil	FL	43	@ 4'	1	To	-014		×	×				4							
16/21		Soil	FL	44	@41	1	Tie	-015		X	*				х							
16/21		Sil	FL	45	64	1	Tue	-016		X	×				X							
1/6/21		Soil	FL	46	64'	1	Tree	-017		X	X		$\exists$		X				$\top$			
1/2/21		Soil	FI.	49	641	1	1/10	-018		X	X				a				+	+		$\vdash$
1/6/21		Soil	FL	50	@4°	1	Tue	-019		X	*				X							
16/21		Soil	FI	51	04	1	Tro	-020		X	4				7				+			$\dashv$
1/6/21		Sil	FL	52	@4	1	Fu	- 021		X	4				×		$\dashv$		+	+	+	+
1/6/21		5:1		53	84"	1		-022		X	.,		$\top$		-		$\dashv$	+	+	+	+	+
1/6/21	9 (1					1	Tu	-073		×	X	$\dashv$	+	+	X	$\dashv$	-		+	+	$\vdash$	$\dashv$
16/21	Is Soil FL 61 CH'					1	74	-024		×	2	+	+	+	A		$\dashv$	+	+	+	$\vdash$	$\dashv$
Date:	Time:	Relinquish	ed by:	. /	1.	Received by:	Via:	Date	Time	Rem	narks				1							
16/21	6/21 1600 hearel Moices					M		1/12/21	Time	Plan	ase	e	ma	11 ,	esw	Us	to	Pr	n 6	e e	ted	nening
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1/6/21	16/21 1900 St					S 646 C	ourier	1/7/21	8:00	1.6	, ±c	>=1.	Coc	2.1	±0:	= 2.(	عد	O.7	1=0	= 0.	700	of 5

Client:	hain	-of-Cu	usto	dy Re	cord	Turn-Around						Je Jes	A	LL	E	V	'IR	20	NP	1E	NT	AL	eived b
	MEL	vBov	IBN	6								A	N	AL	YS	SIS	5 L	AE	30	RA	TC	DR'	Y
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Phone #	<b>#</b> :					132	96				Ŋ.				_	_		uest					
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QA/QC I	Package:					1	Λ	4	(8021)	MR	PCB's		SN NS					pse				1	13:51 PM
□ Stan	dard		□ Lev	el 4 (Ful	l Validation)	hanc	e Cre	islan	) s,	DRO / MRO)			ISO		PO ₄ ,			T/A					N N
Accredi	tation:	□ Az Co	mplian	ce		Sampler: L	wel 1	laica	TMB's	/ DF	Pesticides/8082	<del>-</del>	8270SIMS		NO ₂ ,			Coliform (Present/Absent)					
□ NEL		□ Other					Yes	□ No	1	RO	es/8	504.1)	Ö	<u>s</u>			(A)	P					
□ EDD	(Type)		r			# of Coolers:		(90)	MTBE	D)G	icide		3310	leta	일	2	-i-	orm					
						Cooler Temp	(including CF).	e remarks (°C)	-	015	est	(Method	by	8	ä,	9	Sen	ije l					
	Time Matrix Sample Name					Container	Preservative		BTEX	TPH:8015D(GRO	8081 F	EDB (I	PAHs by 8310	RCRA 8 Metals	CI) F, Br, NO ₃ ,	8260 (VOA)	8270 (Semi-VOA)	Total (					
Date	Time Matrix Sample Name					Type and #	Туре	7101735	<u>B</u>	브	8	岀	Ф	~	5	82	82	스		_	_	$\perp$	
1/6/21	Time Matrix Sample Name Sal FL 63 C 4						Tue	-025	X	X					~								
1/6/21		Sil	FL	64	@ 4	1	Tu	-026	$\propto$	X					4								
1/6/21		Sil	FL	69	B 4'	1	In	-027	X	9					X								
1/421		Soil	FL	70	@ 4	1	Tu	-028	X	×					Y								
16/21		5011	FL	74	e 4'	1	Tu	-029	4	+					X								
1/6/21		Soil	FL	76	@ 4'	1	Tu	-030	×	X					X		1						
16/21		Soil	FL	77	@ 4	1	Cu	-031	4	X					1						$\perp$		
1/4/21		Soil	FL	78	@ 4	1	Tu	-037	X	×					+								
16/21		Soil	FL	81	e 4	1	Tue	-033	×	X					4								
ildzi		Soil	FL	83	e 4	1	Tro	-034	X	7					1								
16/21	1/21 Soil FL 85 @ 4						Ico	-035	or	+					+								
1/6/21	del Soil F1 86 e 41					1.	In	-036	×	×					×								
Date:	de: Time: Relinquished by:					Received by:	Via:	Date Time	Rer Pl	nark:	s: e (	Ém	all	Re	sw	Vs	4	0	pm	0	eta	ech	Page 419 of
Date:	ate: Time: Relinquished by:					Received by:	Via:	Date Time	Ple	ase	6	olo	1 1	for	7	PH	\$	B	TE	(			419
1/6/21	If necessary, samples submitted to Hall Environmental may be si						ourier		•														of 55

C	hain	-of-Cu	stody Record	Turn-Around	Time:								Des D		, T			a == :			eive
Client:	ALEN	VBOU	DATE	Standard	l □ Rush		L												NTA TO		d by
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□ Stan			☐ Level 4 (Full Validation)	600	met (	renstrain	TMB's (8021)	R			8270SIMS					ent/					
Accredi			mpliance		eure	Mojica	Σ	0/	Pesticides/8082	504.1)			NO ₂ ,		2	res					
□ NEL	(Type)	□ Other		On Ice: # of Coolers:	✓ Yes	□ No ¹	/ E	3RC	des/		0 or	als	ဝိ		0	п (Р					
	(Type)					e remarks (°C)	MTBE	) Qg	sticic	(Method	831	Met	ž	(A)	mi-	iforr					
							_	801		(Re	by	A 8	ā	S	(Se	응				1	
Date	Time	Matrix	Sample Name	Container Type and #	Preservative	7 101735	BTEX	TPH:8015D(GRO / DRO / MRO)	8081	EDB	PAHs by 8310	RCRA 8 Metals	CI)F, Br, NO3,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
11	Time		. 1	)	Туре	1777		X	8	ш	-			∞	- 80	-		+	+	+	+
16/21		Soil	FL 87 e 4	1	Iy	-031	X	~		$\dashv$	$\dashv$	$\dashv$	X				_	$\dashv$	_	+	+
1/6/21		Soil	FL 130 84		Tu	-038	X	Λ	-			-	7					$\rightarrow$	+	+	$\perp$
1/6/21		501	FL 127 e 4	(	Tro	-039	×	A					×					$\dashv$	$\perp$	$\perp$	Ш
1/6/21		Soil	FL 126 8 4	1	Tie	-040	X	X					x								
1/6/21		Soil	FL 125 @ 4	1	Tie	-041	×	×					X								
1/6/21		Soil	A 1240 4	1	To	-047	X	×					ox.								П
1/6/21		Soil	FI 123 @ 4'	(	Tu	-043	×	X					X								
1/6/21		501	FL 122 04'	(	Ty	-044	X	X					X					$\top$			П
16/21		Soil	FL 121 04	(	Xu.	-045	×	X					4								
1/6/21		Soil	FI 120 Q Li	(	Ty	-046	V	7					4								П
1/6/21		Soil	FL 119 04		T.	-147	X	入					4					$\neg$			П
16/21		551	FL 117 84'		Too	-048	V	x					X					1			П
Date:	Time:	Relinquish		Received by:	Viair	Date Time	Ren	narks	s:			2		,	1		_		1		
1/10/21	Time:	6000	1 Mores	180		1/b/21 1400	Ple	ase	£ 6	Ma	ul	Kes	inl	13	10	PM	10	et	ech	env	-C2
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1/21					ourser	1/7/21 8:00	1.	6±	0=	1.6	°C	2.1	±o	=	2.1	٥	0. 7	to	rech 1=0.	.7°¢	- 0

Turn-Around Time: Chain-of-Custody Record Client: MEWBOURNE ☐ Standard □ Rush Project Name: www.hallenvironmental.com Mailing Address: AWMS RELEASE 4901 Hawkins NE - Albuquerque, NM 87109 Project #: Tel. 505-345-3975 Fax 505-345-4107 13296 Phone #: email or Fax#: Project Manager: QA/QC Package: □ Standard ☐ Level 4 (Full Validation) ☐ Az Compliance Accreditation: Sampler: | □ NELAC □ Other Ů No On Ice: ☑ Yes □ EDD (Type) # of Coolers: 3 Cooler Temp(including CF): See renge (C) Preservative Container HEAL No. Sample Name Type and # Date Time Matrix Type 1421 IU NW ILE 14/7 1/4/21 063 14/21 UW NW 1/4/21 1/4/21 1/4/21

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Relinquished by:

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### HALL ENVIRONMENTAL **ANALYSIS LABORATORY**

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((	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	CI, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						2:43:31 F.M
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QA/QC F						Troject man	agor.		(8021)	MRC	S'S		3					Ser					511
☐ Stan			□ Leve	I 4 (Full	Validation)	home	e Cores	shaw	S	DRO/MRO)	PCB's		8270SIMS		PO4,			(Present/Absent)					We
Accredi		□ Az Co				Sampler:	resul	Mojica No	TMB	'DR	N	<del>-</del>	827(		NO ₂ ,			eser					
□ NEL		□ Other	-			On Ice:	₽ Yes	□ No	-	RO	Pesticides/8082	EDB (Method 504.1)	o				(Semi-VOA)						
□ EDD	(Type)		,			# of Coolers	: 3		TBE	TPH:8015D(GRO	icide	اق	PAHs by 8310 or	RCRA 8 Metals	Br, NO ₃ ,	8	- <u>i</u> -	Coliform					
						Cooler Tem	O(including CF): See	e remarks (°C)	/ MT	015	est	Met	by 8	8	Ä,	(VOA)	Sen	Solit					
	Time Matrix Sample Name					Container	Preservative	HEAL No.	BTEX	H:8	8081	B (	Hs	Y.	E. F.	8260 (	8270 (	Total (	, J.				
Date						Type and #	Туре	2101235	BI	브	80	ᆈ	4	<u>x</u> (	5)	8	82	卢		+	+	+	+
1/6/21						l		-073	X	X					X				_	$\perp$		4	
ildzi		Sal	FL	163	0,9'	1		-074	X	X					X							$\perp$	Ш
ilaki	_	Sail	FL		@ 3'	1		-075	X	X				٥	7								
1/6/21	-+1	Soil		165	@ 4'	1		-076	X	X					X								
16/21		Soil	FI	166	041	1		-077	×	义					X								Ш
116/21		Soil	FL	167	e 41	1		-078	X	A					X			7					
16/21		Soil	FL	168	A H'			-079	X	X					X								
1/1/21		Soil		169	1	)		-080	X	X					X								
16/21		50.1	FL	170	04	1		-081	X	X					X								Ш
1/21		5-1	FI	171	P4	1		-082	4	X					9								
1/6/21	1 5010 -70 61					1		-083	X	X					X								
1/2/21	6/11 Soil FL 172 & 4					10		-084	X	ス					X								
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1/1/71	121 1600 heard Majica					NF		1/6/21 1600	IN	eas	e	en	rail	r	esu	Ot []	>	, 0	FIL	. 6		16	Se .
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1/6/21	16/21 1900					SGL	Courser	1/7/21 8:00	7.0	10	=1.6	الم	2.1=	0=	2.10	د (	0.7	10	= 0.	700			Page 423 of 559
	If necessary, samples submitted to Hall Environmental may be				mental may be su	bcontracted to other	accredited laborator	ries. This serves as notice of th	is poss	ibility.	Any su	ıb-con	tracted	d data	will be	clearl	ly nota	ated or	the and	alytical	report.		9

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□ NEL		□ Othe		On	Ice:	Yes	□No	_	8	8/s	504.1)	5	S			OA)	(P		ı			
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					oler Lemp	O(including CF): Se	te remarks (°C)	BTEX / MTBE	115[	esti	EDB (Method	PAHs by 8310	RCRA 8 Metals	ĊĶF, Br, NO3,	8260 (VOA)	8270 (Semi-VOA)	Solife				114	
					ntainer	Preservative	HEAL No.	X	78:⊢	31 F	B	T.	R	டி	00	0 (	al C					
Date	Time Matrix Sample Name				e and #	Туре	2101235	ВТ	TPI	808		PA	RC	3	826	827	Tot					
1/6/21		Soil	FL 1740 4	+ '	1	Iu	-085	X	×					X								
16/21		501	FL 175 0 L	1'	1	Tu	-086	X	X					×					1=1			
1/0/21		Soil	FL 1763	3'	1	Tu	-087	X	1					x								П
1/0/21		Soil		1,	1	Tie	-088	X	X					X								П
1/6/2		Soil	FL 178 @ "	7,	1	Tro	-089	X	X					X	-							П
1/6/21		Soil		Ч.	1	Fie	-090	X	X					X								П
1/6/21		Soil	FL 180 @	3'	1	Tre	-190-	X	X					4								П
1/6/21		Sail		3'	1	Tu	-097	X	X					<					1			
ilister		Soil		3'	1	Tre	-193	X	X					×								
1/6/21	21 Soil FL 183 @ 4				1	Tue	-094	X	1					4								П
1/6/21	Soil FL 184 0 4				1	X10	-095	x	1					-								
1/6/21	121 Soil FL 185 @ 4'				1	Tre.	-096	X	×					×								П
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1/6/21	16/21/90 11				aL Co	טערתר	107/21 8:00	1.6	to	=  .	رەد	2.	(±0	= 7	-100	- (	). 7 =	0 =	0.7	7°C		9 3

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Client:	MEW	Bourn	16	Standard	d □ Rush		ANALYSIS LABORATORY												
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Mailing	Address	3:		CWMS	S REU	ASE	www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109												
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email o	r Fax#:			Project Mana	ager:		1	0				SO4			int)				
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☐ Star	ndard		☐ Level 4 (Full Validation)					RO		(1)		, P(			ent/				11
Accreditation:   Az Compliance				Sampler: Legal Majica			Σ	0/D	808			NO ₂ ,		2	rese				
□ NEL	AC (Type)	□ Othe		On Ice: # of Coolers	Yes: 3	□ No	E/	GRC	des/	d 504	als	03,		VOV	m F)				
- LDE	(Type)			The second secon	The second second	e remarks (°C)	MTBE	5D(	8081 Pesticides/8082	EDB (Method 5	RCRA 8 Metals	Z	(A)	-ime	lifor				
							-	:801	1 Pe	(Me	% ¥	B	8260 (VOA)	S) (Se	ပ္				
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2101235	BTEX	TPH	808	EDB PAH	5	Ch. Br. NO3,	826	8270 (Semi-VOA)	Tota				
:16/21		501	FL 186 @ 3'	İ	Two	-097	X	X				X							
16/21		Soil	FL 187 @ 3'	1	The	-098	X	X				X							
1/6/21		Soil	FL 188 @ 4'	1	Tue	-099	X	X				X							$\perp$
1/6/21		Soil	FL 189 @ 4'	1	Tue	-100	X	~				X							$\perp$
1/6/21		Soil	FL 90 @ 4'	1	Tu	-101	X	X				ベ							
16/21		Sol	FL 191 @ 4'	1	Tue	-102	X	4				X							
16/21		501	FL 192 @ 4'	1	Tre	-103	X	4				X							
1/6/21		Soil	FL 193 @ 4	1	Tro	-104	×	X				×							
1/6/21		Soil	FL 194 @ H'	1	Tico	-105	X	×				X							
1/6/21		Soil	FL 195 e 4	1	The	-106	×	X				X							
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. 96-			bmitted to Hall Environmental may be sub	contracted to other	accredited laborator	ies. This serves as notice of th	is poss	ibility.	Any su	b-contrac	ted dat	a will b	e clea	rly nota	ated or				

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ilder		Soil	FL	201 @ 4'	1	Tre	-117	X	×				$\neg$	9					+		
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ildei		Soil	FL	203 € 4'	1	Tee	-110	9	3				+	a				+	+	+	+
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Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2101235	BTEX	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310 or	RCRA 8	(C) F,	8260 (VOA)	8270 (Semi-VOA)	Total (				
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Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL NO.	BTEX / M	TPH:8015	8081 Pesticides/8082	EDB (Method 504.1)	PAHs by 8310	RCRA 8 Metals	J)F, Br,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform				
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			FL 149 4'			-153		+	+	+	+	X	-			_		$\vdash$	-
						-159		-	+	-	-	X	-				+-	$\vdash$	+
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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

January 19, 2021

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241

TEL: (575) 393-5905

FAX:

RE: CWMS Release OrderNo.: 2101331

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 21 sample(s) on 1/9/2021 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 15, 2021.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

# Analytical Report Lab Order 2101331

Date Reported: 1/19/2021

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 102 @5'

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-001 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2200	150	mg/Kg	50	1/13/2021 8:05:41 PM	Л 57497

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 1 of 28

Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 98 @5'

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-002 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	320	60	mg/Kg	20	1/12/2021 8:49:28 PM	1 57497

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 28

Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 99 @5'

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-003 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1700	61	mg/Kg	20	1/12/2021 9:51:31 PM	Л 57497

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-004 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2900	150	mg/Kg	50	1/13/2021 8:18:05 PM	1 57509

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-005 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: JMR
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/11/2021 4:05:55 AM	57437
Surr: BFB	104	70-130	%Rec	1	1/11/2021 4:05:55 AM	57437
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	1/12/2021 2:12:21 PM	57444
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/12/2021 2:12:21 PM	57444
Surr: DNOP	79.7	30.4-154	%Rec	1	1/12/2021 2:12:21 PM	57444
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst	: JMR
Benzene	ND	0.025	mg/Kg	1	1/11/2021 4:05:55 AM	57437
Toluene	ND	0.050	mg/Kg	1	1/11/2021 4:05:55 AM	57437
Ethylbenzene	ND	0.050	mg/Kg	1	1/11/2021 4:05:55 AM	57437
Xylenes, Total	ND	0.10	mg/Kg	1	1/11/2021 4:05:55 AM	57437
Surr: 1,2-Dichloroethane-d4	102	70-130	%Rec	1	1/11/2021 4:05:55 AM	57437
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	1/11/2021 4:05:55 AM	57437
Surr: Dibromofluoromethane	108	70-130	%Rec	1	1/11/2021 4:05:55 AM	57437
Surr: Toluene-d8	98.8	70-130	%Rec	1	1/11/2021 4:05:55 AM	57437

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-006 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	JMR
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/11/2021 6:28:17 AM	57437
Surr: BFB	106	70-130	%Rec	1	1/11/2021 6:28:17 AM	57437
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	1/12/2021 2:36:03 PM	57444
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	1/12/2021 2:36:03 PM	57444
Surr: DNOP	95.8	30.4-154	%Rec	1	1/12/2021 2:36:03 PM	57444
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	JMR
Benzene	ND	0.025	mg/Kg	1	1/11/2021 6:28:17 AM	57437
Toluene	ND	0.050	mg/Kg	1	1/11/2021 6:28:17 AM	57437
Ethylbenzene	ND	0.050	mg/Kg	1	1/11/2021 6:28:17 AM	57437
Xylenes, Total	ND	0.099	mg/Kg	1	1/11/2021 6:28:17 AM	57437
Surr: 1,2-Dichloroethane-d4	99.5	70-130	%Rec	1	1/11/2021 6:28:17 AM	57437
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	1/11/2021 6:28:17 AM	57437
Surr: Dibromofluoromethane	108	70-130	%Rec	1	1/11/2021 6:28:17 AM	57437
Surr: Toluene-d8	98.7	70-130	%Rec	1	1/11/2021 6:28:17 AM	57437

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-007 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	JMR
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/11/2021 6:56:53 AM	57437
Surr: BFB	108	70-130	%Rec	1	1/11/2021 6:56:53 AM	57437
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	1/12/2021 2:59:47 PM	57444
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/12/2021 2:59:47 PM	57444
Surr: DNOP	95.4	30.4-154	%Rec	1	1/12/2021 2:59:47 PM	57444
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	JMR
Benzene	ND	0.025	mg/Kg	1	1/11/2021 6:56:53 AM	57437
Toluene	ND	0.050	mg/Kg	1	1/11/2021 6:56:53 AM	57437
Ethylbenzene	ND	0.050	mg/Kg	1	1/11/2021 6:56:53 AM	57437
Xylenes, Total	ND	0.10	mg/Kg	1	1/11/2021 6:56:53 AM	57437
Surr: 1,2-Dichloroethane-d4	103	70-130	%Rec	1	1/11/2021 6:56:53 AM	57437
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	1/11/2021 6:56:53 AM	57437
Surr: Dibromofluoromethane	109	70-130	%Rec	1	1/11/2021 6:56:53 AM	57437
Surr: Toluene-d8	99.0	70-130	%Rec	1	1/11/2021 6:56:53 AM	57437

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-008 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 7:25:34 AM	57437
Surr: BFB	103	70-130	%Rec	1	1/11/2021 7:25:34 AM	57437
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	1/12/2021 3:23:30 PM	57444
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	1/12/2021 3:23:30 PM	57444
Surr: DNOP	103	30.4-154	%Rec	1	1/12/2021 3:23:30 PM	57444
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: JMR
Benzene	ND	0.024	mg/Kg	1	1/11/2021 7:25:34 AM	57437
Toluene	ND	0.049	mg/Kg	1	1/11/2021 7:25:34 AM	57437
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 7:25:34 AM	57437
Xylenes, Total	ND	0.097	mg/Kg	1	1/11/2021 7:25:34 AM	57437
Surr: 1,2-Dichloroethane-d4	107	70-130	%Rec	1	1/11/2021 7:25:34 AM	57437
Surr: 4-Bromofluorobenzene	96.9	70-130	%Rec	1	1/11/2021 7:25:34 AM	57437
Surr: Dibromofluoromethane	111	70-130	%Rec	1	1/11/2021 7:25:34 AM	57437
Surr: Toluene-d8	98.9	70-130	%Rec	1	1/11/2021 7:25:34 AM	57437

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-009 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 7:54:10 AM	57437
Surr: BFB	104	70-130	%Rec	1	1/11/2021 7:54:10 AM	57437
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	1/12/2021 3:47:12 PM	57444
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	1/12/2021 3:47:12 PM	57444
Surr: DNOP	86.0	30.4-154	%Rec	1	1/12/2021 3:47:12 PM	57444
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	: JMR
Benzene	ND	0.024	mg/Kg	1	1/11/2021 7:54:10 AM	57437
Toluene	ND	0.049	mg/Kg	1	1/11/2021 7:54:10 AM	57437
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 7:54:10 AM	57437
Xylenes, Total	ND	0.098	mg/Kg	1	1/11/2021 7:54:10 AM	57437
Surr: 1,2-Dichloroethane-d4	105	70-130	%Rec	1	1/11/2021 7:54:10 AM	57437
Surr: 4-Bromofluorobenzene	99.2	70-130	%Rec	1	1/11/2021 7:54:10 AM	57437
Surr: Dibromofluoromethane	110	70-130	%Rec	1	1/11/2021 7:54:10 AM	57437
Surr: Toluene-d8	98.6	70-130	%Rec	1	1/11/2021 7:54:10 AM	57437

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-010 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 8:22:38 AM	57437
Surr: BFB	106	70-130	%Rec	1	1/11/2021 8:22:38 AM	57437
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	1/12/2021 4:10:51 PM	57444
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	1/12/2021 4:10:51 PM	57444
Surr: DNOP	114	30.4-154	%Rec	1	1/12/2021 4:10:51 PM	57444
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	JMR
Benzene	ND	0.024	mg/Kg	1	1/11/2021 8:22:38 AM	57437
Toluene	ND	0.049	mg/Kg	1	1/11/2021 8:22:38 AM	57437
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 8:22:38 AM	57437
Xylenes, Total	ND	0.097	mg/Kg	1	1/11/2021 8:22:38 AM	57437
Surr: 1,2-Dichloroethane-d4	101	70-130	%Rec	1	1/11/2021 8:22:38 AM	57437
Surr: 4-Bromofluorobenzene	99.1	70-130	%Rec	1	1/11/2021 8:22:38 AM	57437
Surr: Dibromofluoromethane	106	70-130	%Rec	1	1/11/2021 8:22:38 AM	57437
Surr: Toluene-d8	99.2	70-130	%Rec	1	1/11/2021 8:22:38 AM	57437

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-011 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	: JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 8:51:10 AM	57437
Surr: BFB	106	70-130	%Rec	1	1/11/2021 8:51:10 AM	57437
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	1/12/2021 4:34:28 PM	57444
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/12/2021 4:34:28 PM	57444
Surr: DNOP	96.3	30.4-154	%Rec	1	1/12/2021 4:34:28 PM	57444
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>					Analyst	: JMR
Benzene	ND	0.025	mg/Kg	1	1/11/2021 8:51:10 AM	57437
Toluene	ND	0.049	mg/Kg	1	1/11/2021 8:51:10 AM	57437
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 8:51:10 AM	57437
Xylenes, Total	ND	0.099	mg/Kg	1	1/11/2021 8:51:10 AM	57437
Surr: 1,2-Dichloroethane-d4	105	70-130	%Rec	1	1/11/2021 8:51:10 AM	57437
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	1/11/2021 8:51:10 AM	57437
Surr: Dibromofluoromethane	111	70-130	%Rec	1	1/11/2021 8:51:10 AM	57437
Surr: Toluene-d8	101	70-130	%Rec	1	1/11/2021 8:51:10 AM	57437

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-012 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 9:19:53 AM	57437
Surr: BFB	106	70-130	%Rec	1	1/11/2021 9:19:53 AM	57437
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	1/12/2021 4:58:06 PM	57444
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	1/12/2021 4:58:06 PM	57444
Surr: DNOP	82.5	30.4-154	%Rec	1	1/12/2021 4:58:06 PM	57444
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	JMR
Benzene	ND	0.025	mg/Kg	1	1/11/2021 9:19:53 AM	57437
Toluene	ND	0.049	mg/Kg	1	1/11/2021 9:19:53 AM	57437
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 9:19:53 AM	57437
Xylenes, Total	ND	0.098	mg/Kg	1	1/11/2021 9:19:53 AM	57437
Surr: 1,2-Dichloroethane-d4	103	70-130	%Rec	1	1/11/2021 9:19:53 AM	57437
Surr: 4-Bromofluorobenzene	98.6	70-130	%Rec	1	1/11/2021 9:19:53 AM	57437
Surr: Dibromofluoromethane	109	70-130	%Rec	1	1/11/2021 9:19:53 AM	57437
Surr: Toluene-d8	98.2	70-130	%Rec	1	1/11/2021 9:19:53 AM	57437

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-013 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst	JMR
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 9:48:31 AM	57437
Surr: BFB	105	70-130	%Rec	1	1/11/2021 9:48:31 AM	57437
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	1/12/2021 5:21:38 PM	57444
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/12/2021 5:21:38 PM	57444
Surr: DNOP	71.7	30.4-154	%Rec	1	1/12/2021 5:21:38 PM	57444
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst	JMR
Benzene	ND	0.024	mg/Kg	1	1/11/2021 9:48:31 AM	57437
Toluene	ND	0.049	mg/Kg	1	1/11/2021 9:48:31 AM	57437
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 9:48:31 AM	57437
Xylenes, Total	ND	0.097	mg/Kg	1	1/11/2021 9:48:31 AM	57437
Surr: 1,2-Dichloroethane-d4	105	70-130	%Rec	1	1/11/2021 9:48:31 AM	57437
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	1/11/2021 9:48:31 AM	57437
Surr: Dibromofluoromethane	110	70-130	%Rec	1	1/11/2021 9:48:31 AM	57437
Surr: Toluene-d8	98.7	70-130	%Rec	1	1/11/2021 9:48:31 AM	57437

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-014 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	1/11/2021 8:20:03 AM	57445
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/11/2021 8:20:03 AM	57445
Surr: DNOP	91.4	30.4-154	%Rec	1	1/11/2021 8:20:03 AM	57445
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/11/2021 12:22:54 PM	57438
Surr: BFB	103	75.3-105	%Rec	1	1/11/2021 12:22:54 PM	57438
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	1/11/2021 12:22:54 PM	57438
Toluene	ND	0.050	mg/Kg	1	1/11/2021 12:22:54 PM	57438
Ethylbenzene	ND	0.050	mg/Kg	1	1/11/2021 12:22:54 PM	57438
Xylenes, Total	ND	0.10	mg/Kg	1	1/11/2021 12:22:54 PM	57438
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	1/11/2021 12:22:54 PM	57438

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-015 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	JME
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	1/11/2021 9:31:38 AM	57445
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/11/2021 9:31:38 AM	57445
Surr: DNOP	88.0	30.4-154	%Rec	1	1/11/2021 9:31:38 AM	57445
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 1:33:34 PM	57438
Surr: BFB	102	75.3-105	%Rec	1	1/11/2021 1:33:34 PM	57438
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	1/11/2021 1:33:34 PM	57438
Toluene	ND	0.049	mg/Kg	1	1/11/2021 1:33:34 PM	57438
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 1:33:34 PM	57438
Xylenes, Total	ND	0.098	mg/Kg	1	1/11/2021 1:33:34 PM	57438
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	1/11/2021 1:33:34 PM	57438

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-016 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	1/11/2021 9:55:34 AM	57445
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	1/11/2021 9:55:34 AM	57445
Surr: DNOP	59.4	30.4-154	%Rec	1	1/11/2021 9:55:34 AM	57445
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/11/2021 2:44:34 PM	57438
Surr: BFB	103	75.3-105	%Rec	1	1/11/2021 2:44:34 PM	57438
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	1/11/2021 2:44:34 PM	57438
Toluene	ND	0.050	mg/Kg	1	1/11/2021 2:44:34 PM	57438
Ethylbenzene	ND	0.050	mg/Kg	1	1/11/2021 2:44:34 PM	57438
Xylenes, Total	ND	0.10	mg/Kg	1	1/11/2021 2:44:34 PM	57438
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	1/11/2021 2:44:34 PM	57438

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-017 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	1/11/2021 10:19:20 AM	57445
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/11/2021 10:19:20 AM	57445
Surr: DNOP	48.9	30.4-154	%Rec	1	1/11/2021 10:19:20 AM	57445
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 3:08:13 PM	57438
Surr: BFB	104	75.3-105	%Rec	1	1/11/2021 3:08:13 PM	57438
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	1/11/2021 3:08:13 PM	57438
Toluene	ND	0.049	mg/Kg	1	1/11/2021 3:08:13 PM	57438
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 3:08:13 PM	57438
Xylenes, Total	ND	0.097	mg/Kg	1	1/11/2021 3:08:13 PM	57438
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	1/11/2021 3:08:13 PM	57438

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-018 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	1/11/2021 10:43:37 AM	57445
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/11/2021 10:43:37 AM	57445
Surr: DNOP	58.4	30.4-154	%Rec	1	1/11/2021 10:43:37 AM	57445
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 4:43:19 PM	57438
Surr: BFB	104	75.3-105	%Rec	1	1/11/2021 4:43:19 PM	57438
EPA METHOD 8021B: VOLATILES					Analyst	:: NSB
Benzene	ND	0.025	mg/Kg	1	1/11/2021 4:43:19 PM	57438
Toluene	ND	0.049	mg/Kg	1	1/11/2021 4:43:19 PM	57438
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 4:43:19 PM	57438
Xylenes, Total	ND	0.098	mg/Kg	1	1/11/2021 4:43:19 PM	57438
Surr: 4-Bromofluorobenzene	102	80-120	%Rec	1	1/11/2021 4:43:19 PM	57438

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-019 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	JME
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	1/11/2021 11:07:24 AM	57445
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/11/2021 11:07:24 AM	57445
Surr: DNOP	68.3	30.4-154	%Rec	1	1/11/2021 11:07:24 AM	57445
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 5:06:57 PM	57438
Surr: BFB	103	75.3-105	%Rec	1	1/11/2021 5:06:57 PM	57438
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	1/11/2021 5:06:57 PM	57438
Toluene	ND	0.049	mg/Kg	1	1/11/2021 5:06:57 PM	57438
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 5:06:57 PM	57438
Xylenes, Total	ND	0.098	mg/Kg	1	1/11/2021 5:06:57 PM	57438
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	1/11/2021 5:06:57 PM	57438

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-020 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE OF	RGANICS				Analyst	: ЈМЕ
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	1/11/2021 11:31:30 AM	57445
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/11/2021 11:31:30 AM	57445
Surr: DNOP	73.2	30.4-154	%Rec	1	1/11/2021 11:31:30 AM	57445
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/11/2021 5:30:34 PM	57438
Surr: BFB	103	75.3-105	%Rec	1	1/11/2021 5:30:34 PM	57438
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	1/11/2021 5:30:34 PM	57438
Toluene	ND	0.050	mg/Kg	1	1/11/2021 5:30:34 PM	57438
Ethylbenzene	ND	0.050	mg/Kg	1	1/11/2021 5:30:34 PM	57438
Xylenes, Total	ND	0.099	mg/Kg	1	1/11/2021 5:30:34 PM	57438
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	1/11/2021 5:30:34 PM	57438

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/19/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/7/2021

**Lab ID:** 2101331-021 **Matrix:** SOIL **Received Date:** 1/9/2021 8:40:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: JME
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	1/11/2021 11:55:18 AM	1 57445
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/11/2021 11:55:18 AM	1 57445
Surr: DNOP	58.6	30.4-154	%Rec	1	1/11/2021 11:55:18 AM	57445
EPA METHOD 8015D: GASOLINE RANGE					Analyst	:: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/11/2021 5:54:09 PM	57438
Surr: BFB	102	75.3-105	%Rec	1	1/11/2021 5:54:09 PM	57438
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	1/11/2021 5:54:09 PM	57438
Toluene	ND	0.049	mg/Kg	1	1/11/2021 5:54:09 PM	57438
Ethylbenzene	ND	0.049	mg/Kg	1	1/11/2021 5:54:09 PM	57438
Xylenes, Total	ND	0.098	mg/Kg	1	1/11/2021 5:54:09 PM	57438
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	1/11/2021 5:54:09 PM	57438

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#:

2101331 19-Jan-21

**Client:** Mewbourne Oil Company

**Project: CWMS** Release

Sample ID: MB-57497 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57497 RunNo: 74580

Analysis Date: 1/12/2021 Prep Date: 1/12/2021 SeqNo: 2632348 Units: mq/Kq

PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte Result HighLimit Qual

Chloride ND 1.5

Sample ID: LCS-57497 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57497 RunNo: 74580

Units: mg/Kg Prep Date: 1/12/2021 Analysis Date: 1/12/2021 SeqNo: 2632349

SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual

Chloride 1.5 15.00 92.5

Sample ID: MB-57509 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57509 RunNo: 74555

Prep Date: 1/12/2021 Analysis Date: 1/13/2021 SeqNo: 2632792 Units: mq/Kq

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Chloride ND 1.5

Sample ID: LCS-57509 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57509 RunNo: 74555

Prep Date: 1/12/2021 Analysis Date: 1/13/2021 SeqNo: 2632793 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

14 15.00 92.8 90 Chloride 1.5 n 110

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded Н
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101331** 

19-Jan-21

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: <b>MB-57445</b>	SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: PBS	Batch	n ID: <b>57</b> 4	445	F	RunNo: 7	4518				
Prep Date: 1/11/2021	Analysis D	ate: 1/	11/2021	S	SeqNo: 2	630575	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.8		10.00		87.8	30.4	154			
Sample ID: LCS-57445	SampT	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: LCSS	Batch	n ID: <b>57</b> 4	445	F	RunNo: 7	4518				
Prep Date: 1/11/2021	Analysis D	ate: 1/	11/2021	S	SeqNo: 2	630576	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.7	68.9	141			
Surr: DNOP	4.4		5.000		88.0	30.4	154			
Sample ID: <b>2101331-014AMS</b>	SampT	ype: <b>MS</b>	6	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: FL 217 @4'	Batch	n ID: <b>57</b> 4	445	F	RunNo: 7	4517				
_	Batch Analysis D				RunNo: 7		Units: mg/K	ζg		
Prep Date: 1/11/2021			11/2021		SeqNo: 2		Units: <b>mg/k</b> HighLimit	<b>(g</b> %RPD	RPDLimit	Qual
Client ID: FL 217 @4' Prep Date: 1/11/2021 Analyte Diesel Range Organics (DRO)	Analysis D	ate: <b>1/</b>	11/2021	S	SeqNo: 2	630637	· ·	ŭ	RPDLimit	Qual

Sample ID: 2101331-014AMSE	SampType: MSD TestCode: EPA Method 80						l 8015M/D: Diesel Range Organics				
Client ID: FL 217 @4'	Batch	ID: <b>57</b>	445	R	RunNo: 7	4517					
Prep Date: 1/11/2021	Analysis D	ate: <b>1/</b>	11/2021	S	SeqNo: 2	630638	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	45	9.6	47.85	0	94.8	15	184	0.327	23.9		
Surr: DNOP	3.9		4.785		81.6	30.4	154	0	0		

Sample ID: <b>MB-5/444</b>	Sampi	ype: IVIE	SLK	res	tCode: El	PA Wethod	lethod 8015M/D: Diesei Range Organics					
Client ID: PBS	Batch	1D: <b>57</b> 4	444	F	RunNo: 7	4585						
Prep Date: 1/11/2021	Analysis D	ate: 1/	12/2021	8	SeqNo: 20	632906	Units: mg/K	g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	ND	10										
Motor Oil Range Organics (MRO)	ND	50										
Surr: DNOP	11		10.00		108	30.4	154					

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

2101331 19-Jan-21

WO#:

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: LCS-57444 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 57444 RunNo: 74585

Prep Date: 1/11/2021 Analysis Date: 1/12/2021 SeqNo: 2632907 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Diesel Range Organics (DRO)
 52
 10
 50.00
 0
 105
 68.9
 141

 Surr: DNOP
 5.2
 5.000
 103
 30.4
 154

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101331** *19-Jan-21* 

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-57438 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 57438 RunNo: 74532

Prep Date: 1/9/2021 Analysis Date: 1/11/2021 SeqNo: 2631150 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

 Surr: BFB
 1100
 1000
 106
 75.3
 105
 S

Sample ID: Ics-57438 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 57438 RunNo: 74532

Prep Date: 1/9/2021 Analysis Date: 1/11/2021 SeqNo: 2631151 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 72.5 Gasoline Range Organics (GRO) 26 5.0 25.00 O 103 106 Surr: BFB 1200 75.3 S 1000 116 105

Sample ID: 2101331-015ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range

Client ID: FL 218 @4' Batch ID: 57438 RunNo: 74532

Prep Date: 1/9/2021 Analysis Date: 1/11/2021 SeqNo: 2631154 Units: mg/Kg

Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte PQL Qual Gasoline Range Organics (GRO) 25 5.0 24.98 0 100 61.3 114 Surr: BFB S 1100 999.0 75.3 112 105

Sample ID: 2101331-015amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: FL 218 @4' Batch ID: 57438 RunNo: 74532

Prep Date: 1/9/2021 Analysis Date: 1/11/2021 SeqNo: 2631155 Units: mg/Kg

Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** PQL LowLimit Qual Gasoline Range Organics (GRO) 23 5.0 24.83 93.7 61.3 114 7.24 20 Surr: BFB 1100 993.0 112 75.3 105 0 0 S

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#: 2101331 19-Jan-21

**Client:** Mewbourne Oil Company

**Project: CWMS** Release

Sample ID: mb-57438 SampType: MBLK TestCode: EPA Method 8021B: Volatiles

Client ID: PBS Batch ID: 57438 RunNo: 74532

Prep Date: 1/9/2021 Analysis Date: 1/11/2021 SeqNo: 2631200 Units: mg/Kg

PQL SPK value SPK Ref Val %REC LowLimit %RPD **RPDLimit** Analyte HighLimit Qual

Benzene ND 0.025 Toluene ND 0.050 0.050 Ethylbenzene ND Xylenes, Total ND 0.10

Surr: 4-Bromofluorobenzene 1.0 1.000 104 80 120

Sample ID: LCS-57438 SampType: LCS TestCode: EPA Method 8021B: Volatiles

Client ID: LCSS Batch ID: 57438 RunNo: 74532

1.0

0.9756

Prep Date: 1/9/2021	Analysis [	Date: 1/	11/2021	S	SeqNo: 20	631201	Units: mg/K			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.2	80	120			
Toluene	0.98	0.050	1.000	0	98.0	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.3	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: 2101331-014ams SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: FL 217 @4' Batch ID: 57438 RunNo: 74532 Prep Date: 1/9/2021 Analysis Date: 1/11/2021 SeqNo: 2631203 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0.01424 98.4 76.3 120 0.97 0.024 0.9756 Benzene Toluene 1.0 0.049 0.9756 0.01424 101 78.5 120 124 0.049 103 78.1 Ethylbenzene 1.0 0.9756 Xylenes, Total 3.0 0.098 2.927 0.02082 102 79.3 125

Sample ID: 2101331-014am	<b>sd</b> SampT	ype: <b>MS</b>	SD.	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: FL 217 @4'	Batch	n ID: <b>57</b> 4	438	F	RunNo: 7	4532				
Prep Date: 1/9/2021 Analysis Date: 1/11/2021 SeqNo: 2631204 Units: mg/Kg										
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	0.9814	0.01424	97.3	76.3	120	0.511	20	
Toluene	1.0	0.049	0.9814	0.01424	101	78.5	120	0.421	20	
Ethylbenzene	1.0	0.049	0.9814	0	102	78.1	124	0.552	20	
Xylenes, Total	3.0	0.098	2.944	0.02082	102	79.3	125	0.00583	20	
Surr: 4-Bromofluorobenzene	1.0		0.9814		102	80	120	0	0	

#### Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

Surr: 4-Bromofluorobenzene

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

102

80

120

Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range

RL Reporting Limit Page 26 of 28

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101331** 

19-Jan-21

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: Ics-57437	SampType: LCS4 TestCode: EPA Method 8260B: Volatiles Short List									
Client ID: BatchQC	Batcl	n ID: <b>57</b> 4	437	RunNo: <b>74520</b>						
Prep Date: 1/9/2021	Analysis D	)ate: 1/	10/2021	SeqNo: <b>2630646</b>			Units: mg/K			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	112	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.4	0.10	3.000	0	113	80	120			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		100	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.50		0.5000		99.6	70	130			

Sample ID: mb-57437	Samp1	Гуре: <b>МЕ</b>	BLK	Tes	TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: PBS	Batc	h ID: <b>57</b>	437	F	RunNo: 7	4520					
Prep Date: 1/9/2021	Analysis [	Date: 1/	10/2021	5	SeqNo: 2	630647	Units: mg/K	g			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130				
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.6	70	130				
Surr: Dibromofluoromethane	0.55		0.5000		111	70	130				
Surr: Toluene-d8	0.49		0.5000		97.5	70	130				

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101331** *19-Jan-21* 

Client: Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: Ics-57437 SampType: LCS TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: LCSS Batch ID: 57437 RunNo: 74520

Prep Date: 1/9/2021 Analysis Date: 1/10/2021 SeqNo: 2630672 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Gasoline Range Organics (GRO)
 24
 5.0
 25.00
 0
 97.2
 70
 130

 Surr: BFB
 540
 500.0
 107
 70
 130

Sample ID: mb-57437 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range

Client ID: PBS Batch ID: 57437 RunNo: 74520

Prep Date: 1/9/2021 Analysis Date: 1/10/2021 SeqNo: 2630673 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

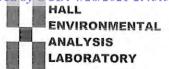
Surr: BFB 510 500.0 103 70 130

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

### Sample Log-In Check List

Client Name; Mewbourne Oil Company	Work Order Number:	210	1331			ReptNo: 1
Received By: Emily Mocho	1/9/2021 8:40:00 AM					
Completed By: Emily Mocho	1/9/2021 9:13:23 AM					
Reviewed By: TF 1/9/2021						
Chain of Custody						
1. Is Chain of Custody complete?		Yes	<b>V</b>	No		Not Present
2. How was the sample delivered?		Cou	rier			
Log In						
3. Was an attempt made to cool the samples?		Yes	<b>V</b>	No		NA 🗌
4. Were all samples received at a temperature o	f >0° C to 6.0°C	Yes	V	No		NA 🗆
5. Sample(s) in proper container(s)?		Yes	~	No		
6. Sufficient sample volume for indicated test(s)?		Yes	<b>V</b>	No		
7. Are samples (except VOA and ONG) properly	preserved?	Yes	<b>V</b>	No		
8. Was preservative added to bottles?		Yes		No	<b>V</b>	NA 🗆
9. Received at least 1 vial with headspace <1/4"	for AQ VOA?	Yes		No		NA 🗹
10. Were any sample containers received broken	?	Yes		No	<b>V</b>	# of preserved
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes	<b>V</b>	No		bottles checked for pH: (<2 or >12 unless noted)
2. Are matrices correctly identified on Chain of C	ustody?	Yes	<b>V</b>	No		Adjusted?
3. Is it clear what analyses were requested?		Yes	~	No		( C
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes	<b>V</b>	No		Checked by: ZVV 19
Special Handling (if applicable)						,
15. Was client notified of all discrepancies with th	is order?	Yes		No		NA 🗹
Person Notified:	Date:					
By Whom:	Via:	eM:	ail 🔲	Phone	Fax	☐ In Person
Regarding:						
Client Instructions:						
16. Additional remarks:						
17. Cooler Information Cooler No Temp °C Condition Sea 1 2.2 Good	I Intact   Seal No   S	eal D	ate	Signed E	Ву	

Released to	-
Imaging:	ī
8/23/20	- 
21 11:	-
37:48 A	1
N	1
	ſ

C	hain	-of-Cu	stody Record	Turn-Around	Time: 5 C	Danx	1		Land.				_								eceiv
Client:	MEN	Bour	11/5	Standard		0		Mag									NN				
	/ O I C V O	Dode	00	Project Nam													30	KA	110	)K	Y G
Mailing	Address			10111	100	1					www	v.ha	llenv	iron	men	tal.co	om				CD:
walling	Addies			CWN	15 Re	Mase		49	01 H	awk	ins l	NE -	Alb	ouqu	erqu	e, N	M 87	109			4/2
				Project #:	296			Te	el. 50	5-34	15-3	975	F	ax	505-	-345-	-4107	7			8/20
Phone	#:								Œ			Δ		/sis	Req	uest					21 2
email o	r Fax#:			Project Mana	ager:		<u>£</u>	00					SO4			ent)					:43:51
QA/QC	Package:			1	0	1	TMB's (8021)	DRO / MRO)	PCB's		8270SIMS		PO4, §			Abse					57.
□ Stan	ndard		☐ Level 4 (Full Validation)	hanc	e tre	schaw	B's	RO,			70SI		, P(			ant/					PM
Accred			mpliance	Sampler: 📈		N/A	₹	_	Pesticides/8082	504.1)			NO ₂ ,		_	Total Coliform (Present/Absent)					
□ NEL		□ Other	·	On Ice:	Yes	□ No	Ē	TP∰8015D(GRO	es/{	207	0 or	sls			8270 (Semi-VOA)	P)					
	(Type)	1		# of Coolers		4-0-2=2-2 (°C)	ETEX MTBE	)D(G	ticio	(Method	8310	8 Metals	Br, NO ₃ ,	(A)	mi-\	forn					
				COOLCI TCITI	S(including of ).	1 2.7.5.6 (0)	Á	3015	Pes	Me	by	181		8	(Se	Coli					
				Container	Preservative			(A)	8081	EDB (	PAHs by	RCRA	G)F,	8260 (VOA)	079	otal					
Date	Time	Matrix	Sample Name	Type and #	Туре	2101331	(8)	E	/ 8	▥	<u>D</u>	Ř	(0)	87	87	Ĕ		$\dashv$	+	+	+
1/7/21		Soil	FL 102 @ 3	(	Ice	001							X					_	_	$\dashv$	$\perp$
1/7/21		5511	FL 98 05	(	Tice	007_							X							$\perp$	
1/7/21		Soil	FL 99 @ 5'	(	Ico	003							X								
1/2/21		Soil	PL 192 e 5'	(	Tro.	004							4								
1/7/21		Soil	FL 208 e 4'	Į.	Ico	005	X	x													
1/7/21		Soil	FL 209 e 4'	ŧ	Tice	004	X	×													
1/7/21		Spil	FL 210 @ 4'	(	Tice	007	x	K													
1/7/21		Soil	FL 211 @ 4'	1	Ico	008	oc	×													
1/7/21		Soil	PL 212 @ 4'	1	Ice	009	X	a													
1/7/21		Soil	FL 213 0 4'	7	Dr.	010	X	X													
1/7/21		Soil	FL 214 e 4	1	Ta	011	X	α													
1/2/21		5016	FL 215 e 4'	1	Ice	012	x	×													
Date:	Time:	Relinquish	ed by:	Received by:	Via:	Date Time	Rer	nark	S:	1100		12.	Ms	to	DN	10,0	Ae	ch	en	v.C	mo
1/7/21	1600	heon		Yllmin		1 1000	re	asse	er.	4000		0500			, .						age
Date:	Time:	Relinquish	ea by:	Received by:	Via:	Date Time															age 461 of
npi	(901	aco	y	M7	Courier	119/21 840															
	If necessary	, samples sub	omitted to Hall Environmental may be sub	contracted to other	accredited laboratorie	es. This serves as notice of this	s poss	ibility.	Any su	ıb-con	tracte	d data	will be	clear	ly nota	ated on	the an	alytica	I report	t.	55

C	hain	-of-C	ustody Record	Turn-Around	Time: 5 00	uX	HALL ENVIRONMENTAL													
Client:			URNE	Standard		•														
	146	00 10	MOVO	Project Name			1 6											<b>₹</b> A	TO	RY
Mailing	Address	3:		CLIM	S RELI	-1015										tal.co				
				Project #:	- KEU	5/4SC	-										M 87			
Phone	#.			132	910			To	el. 50	05-34	5-3		_	_		-345- uest	4107			The same
email o		-	***	Project Mana							le ii			212	Req					77
	Package:			1 Toject Mane	igei.		021)	윊	s's		S		, SO ₄			sen				
□ Star			☐ Level 4 (Full Validation)	harce	Cren	shaw	s (8	10	PCB's		SIM		PO4,			VAb				1 1
Accred	itation:	□ Az C	ompliance	Sampler: {	1001	Wich	TMB's (8021)	, DR		<del>-</del>	8270SIMS		NO ₂ ,			seu				
□ NEL		□ Othe	r	On Ice:	Yes	□ No	-	80	8/8	504.1)	ō	<u>v</u>			OA)	(Pre				
	(Type)			# of Coolers:		1 2-2 -1001	買	D)G	icide		3310	/leta	Br, NO ₃ ,	(A	Nin	orm				
		1		Cooler Terrip	(including CF).	4-0:2=2 Z°C)	2	015	Pesticides/8082	(Method	by	181	Ŗ,	(00)	(Ser	Colit				
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2101331	RTEX) MTBE	(TPH:8015D(GRO / DRO / MRO)	8081	EDB (	PAHs by 8310	RCRA 8 Metals	CI, F,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)				
0/7/21		500	FL 216 @ 4'	1	Tie	D13	X	×												
1/7/21		501	FL 217 @ 4	(	Tue Jue	014	X	×										$\top$		
1/2/21		Sall	FL 218 & H	(	Tue	015	X	N												
1/7/21		Sail	FL 719 8 4	1	Du	014	×	N												
1/2/21		Sil	FL 220 @ 4	· ·	Du	017	2	a												
1/7/21		Soil	A 221 @ 4	(	Tre	018	X	a												
1/1/21		Soil	PL 122 @ 4	1	Īų.	019	ox	w										1		
1/2/21		Soll	PL 223 @ 4	1	To	026	X	œ										1		
1/2/21		Soil	PL 274 @ 4	1	Cio	021	X	00			$\neg$						+	1		
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Date:	Time:	Relinquish		Received by:	via: 0	Date Time   9   2   840														o



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

January 29, 2021

Lance Crenshaw Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241

TEL: (575) 393-5905

FAX

RE: CWMS Release OrderNo.: 2101699

#### Dear Lance Crenshaw:

Hall Environmental Analysis Laboratory received 37 sample(s) on 1/20/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

Indes

4901 Hawkins NE

Albuquerque, NM 87109

Project:

**Analytical Report** Lab Order 2101699

Collection Date: 1/19/2021

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 1 @ 4' **CWMS** Release

Lab ID: 2101699-001 Matrix: SOIL Received Date: 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	650	60	mg/Kg	20	1/21/2021 9:25:37 PM	1 57674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

Page 1 of 41

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 3 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-002 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1000	60	mg/Kg	20	1/21/2021 9:38:02 PM	1 57674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 2 of 41

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 4 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-003 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	310	61	mg/Kg	20	1/21/2021 9:50:27 PM	A 57674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 41

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 6 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-004 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	DF Date Analyzed				
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>			
Chloride	210	60	mg/Kg	20	1/21/2021 10:02:51 F	PM 57674			

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 41

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 7 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-005 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: <b>VP</b>
Chloride	1100	59	mg/Kg	20	1/21/2021 10:40:04 F	PM 57674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 5 of 41

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 11 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-006 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: <b>VP</b>
Chloride	390	59	mg/Kg	20	1/21/2021 10:52:29 F	PM 57674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 6 of 41

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 12 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-007 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1700	59	mg/Kg	20	1/21/2021 11:04:53 P	PM 57674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

**Analytical Report** Lab Order 2101699

Collection Date: 1/19/2021

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 14 @ 4' **CWMS** Release

Lab ID: 2101699-008 Matrix: SOIL Received Date: 1/20/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	1100	60	mg/Kg	20	1/21/2021 11:17:18 F	PM 57674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

Page 8 of 41

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 16 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-009 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1000	60	mg/Kg	20	1/21/2021 11:29:43 F	PM 57674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

Analytical Report
Lab Order 2101699

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company

**CWMS** Release

Client Sample ID: FL 19 @ 4'
Collection Date: 1/19/2021

**Lab ID:** 2101699-010 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Anal	yst: <b>VP</b>
Chloride	1400	60	mg/Kg	20	1/21/2021 11:42:08	PM 57674

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 10 of 41

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 21 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-011 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	870	60	mg/Kg	20	1/22/2021 1:18:10 PM	И 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 25 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-012 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qı	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	900	60	mg/Kg	20	1/22/2021 1:30:35 PM	M 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 26 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-013 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1700	60	mg/Kg	20	1/22/2021 1:42:59 PM	И 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 28 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-014 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	710	60	mg/Kg	20	1/22/2021 1:55:23 PM	1 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 31 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-015 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	430	60	mg/Kg	20	1/22/2021 2:07:48 PM	И 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 32 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-016 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	340	61	mg/Kg	20	1/22/2021 2:45:01 PN	M 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 33 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-017 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1300	60	mg/Kg	20	1/22/2021 2:57:25 PM	A 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Client Sample ID: FL 36 @ 4'

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

**Project:** CWMS Release Collection Date: 1/19/2021

**Lab ID:** 2101699-018 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	87	60	mg/Kg	20	1/22/2021 3:09:50 PM	Л 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 37 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-019 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	840	60	mg/Kg	20	1/22/2021 3:22:14 PM	M 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 38 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-020 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	3500	150	mg/Kg	50	1/25/2021 3:39:55 PM	1 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 47 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-021 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2200	61	mg/Kg	20	1/22/2021 3:47:03 PN	M 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 48 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-022 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	780	60	mg/Kg	20	1/22/2021 3:59:28 PM	A 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company

**Project:** CWMS Release

**Lab ID:** 2101699-023

Matrix: SOIL

Client Sample ID: FL 54 @ 4'
Collection Date: 1/19/2021

**Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	910	60	mg/Kg	20	1/22/2021 4:11:53 PN	M 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 58 @ 4'

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-024 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	870	60	mg/Kg	20	1/22/2021 4:24:17 PM	A 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 59

**Project:** CWMS Release Collection Date: 1/19/2021

**Lab ID:** 2101699-025 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	430	60	mg/Kg	20	1/22/2021 4:36:42 PM	A 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 62

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-026 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1600	60	mg/Kg	20	1/22/2021 5:13:56 PM	A 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company Client Sample ID: FL 67

**Project:** CWMS Release Collection Date: 1/19/2021

**Lab ID:** 2101699-027 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1300	60	mg/Kg	20	1/22/2021 5:26:21 PM	A 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 72

**Project:** CWMS Release Collection Date: 1/19/2021

**Lab ID:** 2101699-028 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1900	60	mg/Kg	20	1/22/2021 5:38:45 PM	A 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Project:

#### **Analytical Report** Lab Order 2101699

Collection Date: 1/19/2021

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company **Client Sample ID:** FL 73 **CWMS** Release

Lab ID: 2101699-029 Matrix: SOIL Received Date: 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	1800	60	mg/Kg	20	1/22/2021 5:51:10 PM	M 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 79

**Project:** CWMS Release Collection Date: 1/19/2021

**Lab ID:** 2101699-030 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2300	150	mg/Kg	50	1/25/2021 3:52:19 PM	1 57687

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 80

**Project:** CWMS Release Collection Date: 1/19/2021

**Lab ID:** 2101699-031 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	2100	60	mg/Kg	20	1/22/2021 11:01:22 F	PM 57697

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-032 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	: VP
Chloride	91	60	mg/Kg	20	1/22/2021 11:13:47 PM	57697
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst:	mb
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	1/27/2021 8:25:08 AM	57756
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/27/2021 8:25:08 AM	57756
Surr: DNOP	98.9	30.4-154	%Rec	1	1/27/2021 8:25:08 AM	57756
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	1/28/2021 12:49:34 AM	57754
Surr: BFB	96.3	75.3-105	%Rec	1	1/28/2021 12:49:34 AM	57754
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	1/28/2021 12:49:34 AM	57754
Toluene	ND	0.048	mg/Kg	1	1/28/2021 12:49:34 AM	57754
Ethylbenzene	ND	0.048	mg/Kg	1	1/28/2021 12:49:34 AM	57754
Xylenes, Total	ND	0.097	mg/Kg	1	1/28/2021 12:49:34 AM	57754
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	1/28/2021 12:49:34 AM	57754

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: WW 23

Project: CWMS Release

Collection Date: 1/19/2021

**Lab ID:** 2101699-033 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: VP
Chloride	ND	59	mg/Kg	20	1/22/2021 11:26:11 PM	57697
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	mb
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	1/27/2021 8:49:05 AM	57756
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	1/27/2021 8:49:05 AM	57756
Surr: DNOP	92.6	30.4-154	%Rec	1	1/27/2021 8:49:05 AM	57756
EPA METHOD 8015D: GASOLINE RANGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/28/2021 2:00:28 AM	57754
Surr: BFB	93.2	75.3-105	%Rec	1	1/28/2021 2:00:28 AM	57754
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	1/28/2021 2:00:28 AM	57754
Toluene	ND	0.050	mg/Kg	1	1/28/2021 2:00:28 AM	57754
Ethylbenzene	ND	0.050	mg/Kg	1	1/28/2021 2:00:28 AM	57754
Xylenes, Total	ND	0.099	mg/Kg	1	1/28/2021 2:00:28 AM	57754
Surr: 4-Bromofluorobenzene	96.7	80-120	%Rec	1	1/28/2021 2:00:28 AM	57754

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: SW 12

**Project:** CWMS Release Collection Date: 1/19/2021

**Lab ID:** 2101699-034 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	77	60	mg/Kg	20	1/22/2021 11:38:36 F	PM 57697

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 164 @ 4'

Project: CWMS Release

Collection Date: 1/18/2021

**Lab ID:** 2101699-035 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: <b>VP</b>
Chloride	63	60	mg/Kg	20	1/22/2021 11:51:00 F	PM 57697

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 35 of 41

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Mewbourne Oil Company

Client Sample ID: FL 176 @ 4'

Project: CWMS Release

Collection Date: 1/18/2021

**Lab ID:** 2101699-036 **Matrix:** SOIL **Received Date:** 1/20/2021 8:00:00 AM

Analyses	Result	RL Qı	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: <b>VP</b>
Chloride	110	60	mg/Kg	20	1/23/2021 12:28:14 /	AM 57697

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 36 of 41

Project:

**Analytical Report** Lab Order 2101699

Collection Date: 1/18/2021

Date Reported: 1/29/2021

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Mewbourne Oil Company Client Sample ID: FL 99 @ 5' **CWMS** Release

Lab ID: 2101699-037 Matrix: SOIL Received Date: 1/20/2021 8:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: <b>VP</b>
Chloride	2700	150	mg/Kg	50	1/25/2021 4:04:44 PN	1 57697

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- Reporting Limit

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#### **OC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101699 29-Jan-21** 

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57674 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57674 RunNo: 74763

Prep Date: 1/21/2021 Analysis Date: 1/21/2021 SeqNo: 2638800 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57674 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57674 RunNo: 74763

Prep Date: 1/21/2021 Analysis Date: 1/21/2021 SeqNo: 2638801 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 92.9 90 110

Sample ID: MB-57687 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57687 RunNo: 74811

Prep Date: 1/22/2021 Analysis Date: 1/22/2021 SeqNo: 2640243 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57687 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57687 RunNo: 74811

Prep Date: 1/22/2021 Analysis Date: 1/22/2021 SeqNo: 2640244 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 92.8 90 110

Sample ID: MB-57697 SampType: MBLK TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 57697 RunNo: 74811

Prep Date: 1/22/2021 Analysis Date: 1/22/2021 SeqNo: 2640290 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-57697 SampType: LCS TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 57697 RunNo: 74811

Prep Date: 1/22/2021 Analysis Date: 1/22/2021 SeqNo: 2640291 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 91.8 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 38 of 41

#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101699 29-Jan-21** 

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: MB-57756 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: **PBS** Batch ID: **57756** RunNo: **74881** 

Prep Date: 1/27/2021 Analysis Date: 1/27/2021 SeqNo: 2643135 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Diesel Range Organics (DRO) ND 10

Motor Oil Range Organics (MRO) ND 50

Surr: DNOP 10 10.00 102 30.4 154

Sample ID: LCS-57756 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 57756 RunNo: 74881

4.7

Prep Date: 1/27/2021 Analysis Date: 1/27/2021 SeqNo: 2643136 Units: mg/Kg

5.000

SPK value SPK Ref Val %REC Analyte PQL LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 46 10 50.00 92.8 68.9 141

93.8

30.4

154

#### Qualifiers:

Surr: DNOP

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 39 of 41

#### **OC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: **2101699 29-Jan-21** 

**Client:** Mewbourne Oil Company

**Project:** CWMS Release

Sample ID: mb-57754 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: **PBS** Batch ID: **57754** RunNo: **74882** 

Prep Date: 1/26/2021 Analysis Date: 1/28/2021 SegNo: 2643559 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 930 1000 93.4 75.3 105

Sample ID: Ics-57754 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 57754 RunNo: 74882

Prep Date: 1/26/2021 Analysis Date: 1/28/2021 SeqNo: 2643560 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 80 Gasoline Range Organics (GRO) 5.0 25.00 O 96.5 120 Surr: BFB 1100 S 1000 106 75.3 105

Sample ID: 2101699-032ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range

Client ID: **NW 9** Batch ID: **57754** RunNo: **74882** 

Prep Date: 1/26/2021 Analysis Date: 1/28/2021 SeqNo: 2643562 Units: mg/Kg

Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte PQL LowLimit Qual Gasoline Range Organics (GRO) 28 5.0 24.75 0 114 61.3 114 Surr: BFB S 1100 990.1 75.3 105 110

Sample ID: 2101699-032amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: **NW 9** Batch ID: **57754** RunNo: **74882** 

Prep Date: 1/26/2021 Analysis Date: 1/28/2021 SeqNo: 2643563 Units: mg/Kg

Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** PQL LowLimit Qual Gasoline Range Organics (GRO) 30 5.0 24.88 119 61.3 114 4.62 S 20 Surr: BFB 1100 995.0 108 75.3 105 0 0 S

#### Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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#### **QC SUMMARY REPORT**

### Hall Environmental Analysis Laboratory, Inc.

WO#: 2101699

29-Jan-21

**Client:** Mewbourne Oil Company

**Project: CWMS** Release

Client ID: LCSS

Sample ID: mb-57754 SampType: MBLK TestCode: EPA Method 8021B: Volatiles

Client ID: PBS Batch ID: 57754 RunNo: 74882

Prep Date: 1/26/2021 Analysis Date: 1/28/2021 SeqNo: 2643593 Units: mg/Kg

PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte Result Qual Benzene ND 0.025

Toluene ND 0.050 0.050 Ethylbenzene ND Xylenes, Total ND 0.10

Surr: 4-Bromofluorobenzene 0.97 1.000 96.6 80 120

Sample ID: LCS-57754 SampType: LCS TestCode: EPA Method 8021B: Volatiles

Batch ID: 57754 RunNo: **74882** 

Prep Date: 1/26/2021	Analysis L	Date: <b>1/</b>	28/2021	SeqNo: <b>2643594</b>			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.5	80	120			
Toluene	0.98	0.050	1.000	0	97.8	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID: 2101699-033ams SampType: MS TestCode: EPA Method 8021B: Volatiles

Client ID: WW 23 Batch ID: 57754 RunNo: 74882

Prep Date: 1/26/2021	Analysis [	Date: <b>1/</b>	28/2021	8	SeqNo: <b>2643597</b>			Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.1	0.024	0.9737	0	109	76.3	120					
Toluene	1.1	0.049	0.9737	0.01202	112	78.5	120					
Ethylbenzene	1.1	0.049	0.9737	0	115	78.1	124					
Xylenes, Total	3.4	0.097	2.921	0.01668	115	79.3	125					
Surr: 4-Bromofluorobenzene	0.95		0.9737		97.7	80	120					

Sample ID: 2101699-033amsd TestCode: EPA Method 8021B: Volatiles SampType: MSD

Client ID: WW 23 Batch ID: 57754 RunNo: 74882

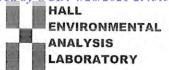
Prep Date: 1/26/2021	Analysis D	oate: <b>1/</b>	28/2021	SeqNo: <b>2643598</b>			Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9709	0	111	76.3	120	1.57	20	
Toluene	1.1	0.049	0.9709	0.01202	114	78.5	120	0.959	20	
Ethylbenzene	1.1	0.049	0.9709	0	115	78.1	124	0.0208	20	
Xylenes, Total	3.4	0.097	2.913	0.01668	115	79.3	125	0.0956	20	
Surr: 4-Bromofluorobenzene	0.95		0.9709		97.4	80	120	0	0	

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix

- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits
- Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

### Sample Log-In Check List

Client Name: Mewt	oourne Oil Company	Work Order Number:	2101699		RcptNo:	1
Received By: Che	yenne Cason	1/20/2021 8:00:00 AM				
Completed By: Erin	Melendrez	1/20/2021 8:34:25 AM				
Reviewed By: 5G	1/20/21					
Chain of Custody						
1. Is Chain of Custody	complete?		Yes 🗸	No 🗌	Not Present	
2. How was the sample	e delivered?		Courier			
Log In						
3. Was an attempt mad	de to cool the samples?	?	Yes 🗸	No 🗌	NA 🗌	
4. Were all samples red	ceived at a temperature	of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗆	
5. Sample(s) in proper	container(s)?		Yes 🗹	No 🗌		
6. Sufficient sample vol	ume for indicated test(	s)?	Yes 🔽	No 🗌		
7. Are samples (except	VOA and ONG) proper	rly preserved?	Yes 🗸	No 🗆		
8. Was preservative ad	ded to bottles?		Yes	No 🔽	NA $\square$	
9. Received at least 1 v	vial with headspace <1/4	4" for AQ VOA?	Yes	No 🗆	NA 🗹	
10. Were any sample co	ontainers received broke	en?	Yes	No 🗹	# of preserved	
11. Does paperwork mat (Note discrepancies			Yes 🗸	No 🗆	bottles checked for pH: (<2 or>	12 unless noted)
2. Are matrices correctl	y identified on Chain of	Custody?	Yes 🗸	No 🗌	Adjusted?	
3. Is it clear what analys	ses were requested?		Yes 🗸	No 🗌	/	<del>-</del> 0 -
<ol> <li>Were all holding time (If no, notify custome</li> </ol>			Yes 🗹	No 🗆	Checked by:	PA 1.70
Special Handling (i	f applicable)					
15. Was client notified o	of all discrepancies with	this order?	Yes	No 🗌	NA 🗹	
Person Notifie	d:	Date:				
By Whom:		Via:	eMail	Phone  Fax	☐ In Person	
Regarding:						
Client Instructi	ons:					
16. Additional remarks:						
17. <u>Cooler Information</u> Cooler No Ter	TOTAL CONTRACTOR OF STREET	Seal Intact   Seal No   S	eal Date	Signed By		
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			17720-	Container	Preservative	HEAL No.	BTEX /	H:8	81	B(	HS.	S.RA	F,	09	70 (	tal (				
Date	Time	Matrix	Sample Name	Type and #	Туре	2101699	В	Ľ,	8	Ш	7	Ϋ́	0	82	82	P				$\vdash$
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iligizi		Soil	PL 12 @ 4'	(	In	-007			T				1							
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1/19/21		Soil	FL 21 e 4'	(	Fco	-011							交							
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	If necessary	, samples su	bmitted to Hall Environmental may be sub-	contracted to other a	accredited laboratorie	es. This serves as notice of this	e of this possibility. Any sub-contracted data will be clearly notated on the analytical report.							59						

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□ NEL		□ Othe		On Ice:	n Ice: Yes No					E / TMIE RO / DIE 808/8082 504.1) or 827 s NO ₂ (Prese											
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				Cooler Temp	(including CF):	(°C)	Σ	15D	estic	leth	y 83	3 Me	Z,	VO V	em	olifo					
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX/	TPH:8015D(GRO	8081 Pesticides/8082	EDB (Method	PAHs by 8310	RCRA 8 Metals	CI, F, Br, NO3,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)					
ilda		5011	Fl. 26 @ 4	1	Lea	-013							X								
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Client:	1	Bon	ustody Record		d □ Rush e: US Ref		HALL ENVIRONMENTAL ANALYSIS LABORATORY  www.hallenvironmental.com  4901 Hawkins NE - Albuquerque, NM 87109  Tel. 505-345-3975 Fax 505-345-4107  Analysis Request													
Phone :	#:			132	96						P	Α	naly	sis	Req	uest	TIE.		1 .	1 4.
email o  QA/QC    Stan	Package: dard		☐ Level 4 (Full Validation)		7	row	TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	82 PCB's	504.1)	8270SIMS		NO ₂ , PO ₄ , SO ₄			(Present/Absent)				45:51 FM
□ NEL	AC	☐ Othe	,	On Ice: # of Coolers: Cooler Temp	Ice:						PAHs by 8310 or 82	RCRA 8 Metals	CI,F, Br, NO3, NC	8260 (VOA)	8270 (Semi-VOA)	Coliform				
Date	Time	Matrix	Sample Name	Container Type and #	Type	7101699	BTEX	TPH	8081 Pesticides/8082	EDB (Method	PAH	RCF	(5)	826(	827(	Total				
1/19/21		Sal	FL 59 FI 62	1	Tue Tue	-025 -026							X				+			
ilial21		Sil	A 67	1	Su	-027					- 1		X							
119/21		501	FL 72	(	Fee	-028 -029							X				1	1		
1 (1912) 1 (1912) 1 (1912)		501	PL 79		Tre	-030							X					1		
1/19/21		Sil	FL 30 NW 9	(	Tue The	-031 -032	œ	X					X					1		
19/21		Soil	WW 73 SW 12	1	Tre	-033 -034	X	又义					R							
Date	Time	Polinguish	ed by:	Received by:	Via:	Date Time	D-													
Date:	Time:  (Over)   Time:   1900	Relinquish Relinquish	ed by:	Received by: Via: Pate Time Remarks: Please enail results to an exercise con section of the subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.								Page 508 of 559								

Turn-Around Time: 5 Dan Chain-of-Custody Record HALL ENVIRONMENTAL Client: Membourne **ANALYSIS LABORATORY** Project Name: www.hallenvironmental.com CWMS Release Project #: 13296 Mailing Address: 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107 Phone #: **Analysis Request** Project Manager: email or Fax#: SO4 TPH:8015D(GRO / DRO / MRO) Coliform (Present/Absent) TMB's (8021) 8270SIMS QA/QC Package: □ Standard □ Level 4 (Full Validation) Accreditation: 

Az Compliance Sampler: heave 8270 (Semi-VOA) ☐ NELAC □ Other On Ice: ☑ Yes Br, NO₃, I RCRA 8 Metals BTEX / MTBE ☐ EDD (Type) # of Coolers: 2 8260 (VOA) (°C) Cooler Temp(including CF): Ser Dev CI)E, Total Container Preservative HEAL No. Sample Name Date Time Matrix Type and # Type 1/18/21 Tro 1/18/21 Glass. -03/0 118/2

Remarks:
Please email results to pure eteches. Received by: Relinquished by: Via: Relinguished by: If necessary, samples submitted to Hall Havironmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

## Appendix C Photographic Log

**Photo Number:** 

1

**Photo Direction:** Southwest

**Photo Description:** 

Produced Water Release



**Photo Number:** 

2

**Photo Direction:** 

Northwest

**Photo Description:** 



**Photo Number:** 

3

**Photo Direction:** South

**Photo Description:** 

Produced Water Release



**Photo Number:** 

4

**Photo Direction:** 

South-Southwest

**Photo Description:** 



Photo Number:

5

**Photo Direction:** South-Southeast

**Photo Description:** 

Produced Water Release



**Photo Number:** 

6

**Photo Direction:** 

Southeast

**Photo Description:** 



**Photo Number:** 

7

Photo Direction: Northwest

**Photo Description:** 

Produced Water Release



**Photo Number:** 

8

Photo Direction:

North

**Photo Description:** 



**Photo Number:** 

9

Photo Direction: Northwest

**Photo Description:** 

Produced Water Release



**Photo Number:** 

10

**Photo Direction:** 

Northwest

**Photo Description:** 



**Photo Number:** 

11

**Photo Direction:** West-Southwest

**Photo Description:** 

Excavation



**Photo Number:** 

12

**Photo Direction:** 

East

**Photo Description:** 

Excavation



**Photo Number:** 

13

**Photo Direction:** 

West

**Photo Description:** 

Excavation



**Photo Number:** 

14

**Photo Direction:** 

East

**Photo Description:** 

Excavation



**Photo Number:** 

15

**Photo Direction:** 

Southeast

**Photo Description:** 

Excavation



**Photo Number:** 

16

**Photo Direction:** 

West

**Photo Description:** 

Excavation (During Backfilling)



**Photo Number:** 

17

**Photo Direction:** 

Southeast

**Photo Description:** 

Excavation (During Backfilling)



**Photo Number:** 

18

**Photo Direction:** 

East

**Photo Description:** 

Excavation (During Backfilling)



Photo Number:

19

Photo Direction: Northeast

**Photo Description:** 

Remediated Area (After Backfilling & Regrading)



**Photo Number:** 

20

Photo Direction: Northeast

**Photo Description:** 

Remediated Area (After Backfilling & Regrading)



**Photo Number:** 

21

**Photo Direction:** East-Southeast

**Photo Description:** 

Remediated Area (After Backfilling & Regrading)



**Photo Number:** 

22

Photo Direction:

Southeast

**Photo Description:** 

Remediated Area (After Backfilling & Regrading)



**Photo Number:** 

23

**Photo Direction:** South-Southeast

**Photo Description:** 

Remediated Area (After Backfilling & Regrading)



**Photo Number:** 

24

**Photo Direction:** North-Northeast

**Photo Description:** 

Remediated Area (After Backfilling & Regrading)



## Appendix D Depth to Groundwater Information

**Eddy County** 

Drafted: bja

Checked: jwl

Date:

3/10/21



### New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.) (R=POD has been replaced, O=orphaned,

closed)

C=the file is (quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

POD

Sub- Q Q Q Water basin County 64 16 4 Sec Tws Rng X Y DistanceDepthWellDepthWaterColumn

 POD Number
 Code
 basin
 County
 64 16 4 Sec
 Tws
 Rng
 X
 Y
 DistanceDepthWellDepthWater Column

 C 03031
 C
 ED
 1 3 3 3 35 238 27E
 578315 3569206*
 701 150 67 8

Average Depth to Water:

67 feet 67 feet

Minimum Depth:

Maximum Depth: 67 feet

(In feet)

Record Count: 1

**UTMNAD83 Radius Search (in meters):** 

**Easting (X):** 578790.16 **Northing (Y):** 3569721.75 **Radius:** 804.67

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/20/20 10:16 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



## New Mexico Office of the State Engineer

## **Point of Diversion Summary**

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** 

C 03031

Q64 Q16 Q4 Sec Tws Rng

X

3 35 23S 27E 578315 3569206*

**Driller Company: Driller License:** 685

BRAZEAL, JOHN

**Driller Name:** 

WAYNE BRAZEAL

**Drill Start Date:** 

06/10/2004

**Drill Finish Date:** 

06/16/2004

Plug Date:

Log File Date:

06/24/2004

**PCW Rcv Date:** 

Shallow

**Depth Well:** 

Source: **Estimated Yield:** 

50 GPM

**Pump Type: Casing Size:**  Pipe Discharge Size:

150 feet

**Depth Water:** 

67 feet

**Water Bearing Stratifications:** 

6.00

**Top Bottom Description** 

139

150 Other/Unknown

**Casing Perforations:** 

Top Bottom

90 150

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/20/20 10:18 AM

POINT OF DIVERSION SUMMARY

^{*}UTM location was derived from PLSS - see Help



#### Legend

Site Location

Well - USGS

____ 1,000-Ft Radius

☐ 0.5-Mi Radius

#### Figure 5

**USGS Well Proximity Map** Mewbourne Oil Company Carlsbad Water Management System GPS: 32.261438, -104.163478 **Eddy County** 





**Environmental & Safety Solutions, Inc.** 

Drafted: bja

Checked: jwl

Date:

3/10/21

#### **National Water Information System: Web Interface**

**USGS** Water Resources

Data Category: Geographic Area:

Groundwater ✓ United States ✓ GO

#### Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Table of data

Tab-separated data

Graph of data

Groundwater levels for the Nation

#### Search Results -- 1 sites found

Agency code = usgs site_no list =

• 321624104094801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

#### USGS 321624104094801 23S.27E.26.323332

Eddy County, New Mexico Latitude 32°16'24", Longitude 104°09'48" NAD27 Land-surface elevation 3,139 feet above NAVD88 The depth of the well is 156 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

#### **Output formats**

Date	Time	? Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status		? Method of measurement	? Measuring agency	? Source of measurement	? Wa leve app stat
1954-02-16		D	107.19			2			U		U	J
1955-01-17		D	112.42			2		R	U		L	J
1956-01-10		D	108.77			2			U		U	J
1957-01-09		D	119.35			2		Р	U		L	J
1958-01-16		D	104.74			2			U		U	J
1959-01-09		D	119.29			2		Р	U		L	J
1960-01-15		D	104.10			2			U		U	J
1961-01-13		D	102.31			2			U		L	J
1962-01-19		D	97.86			2			U		U	J
1963-01-22		D	102.16			2			U		L	J
1964-01-20		D	104.21			2			U		U	J
1965-01-14		D	117.68			2		Р	U		U	J
1966-01-05		D	115.60			2			U		U	J
1967-01-19		D	113.96			2			U		U	J
1968-01-26		D	112.32			2			U		U	J
1969-01-28		D	111.92			2			U		U	J
1970-01-20		D	112.49			2			U		U	J
1971-01-14		D	120.74			2			U		U	J
1972-01-12		D	121.66			2			U		U	J
1973-01-05		D	123.34			2			U		L	J
1974-01-16		D	121.74			2			U		L	I

Received	d by OCL	: 4/28/2021	2:43:51 PM							Page 529 of 3	559
Date	Time	? Water- level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Wate level appro statu
1975-01-16		D	123.56			2		U		U	
1976-01-13		D	122.91			2		U		U	
1977-01-13		D	125.05			2		U		U	
1978-01-23		D	128.42			2		U		U	
1979-01-18		D	129.94			2		U		U	
1981-05-20		D	126.56			2		U		U	
1983-01-25		D	124.79			2		U		U	
1988-02-11		D	110.98			2		U		U	

Explanation	Ex	pla	na	tic	n
-------------	----	-----	----	-----	---

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	Р	Site was being pumped.
Status	R	Site had been pumped recently.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	Α	Approved for publication Processing and review completed.

Questions about sites/data? Feedback on this web site **Automated retrievals** <u>Help</u> **Data Tips Explanation of terms** Subscribe for system changes **News** 

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey Title: Groundwater for USA: Water Levels

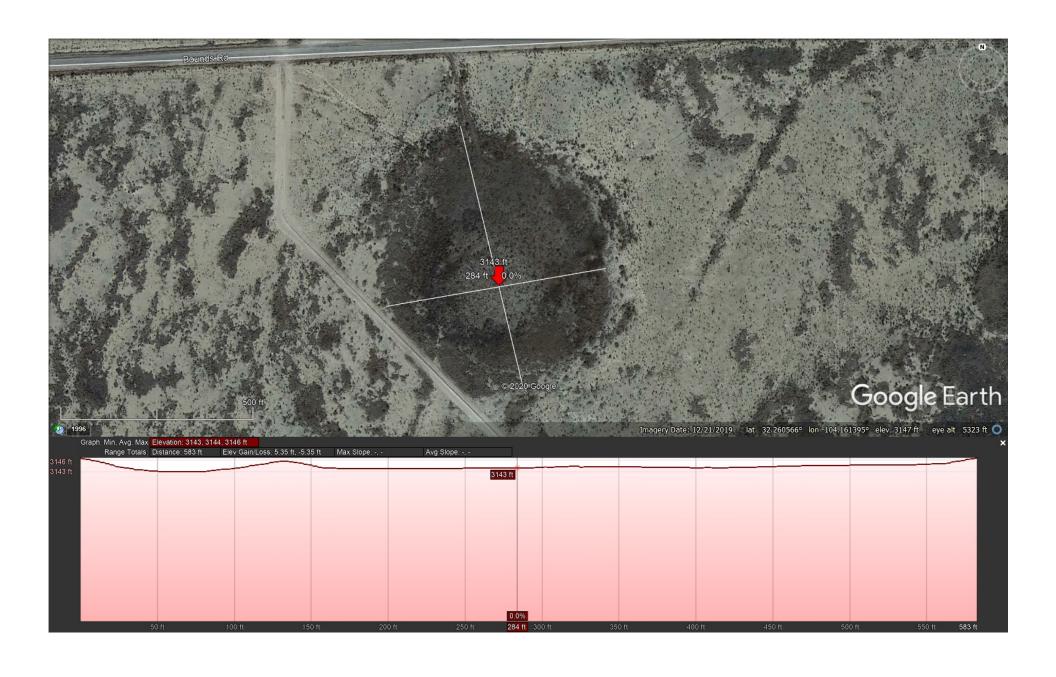
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2020-10-20 12:12:24 EDT

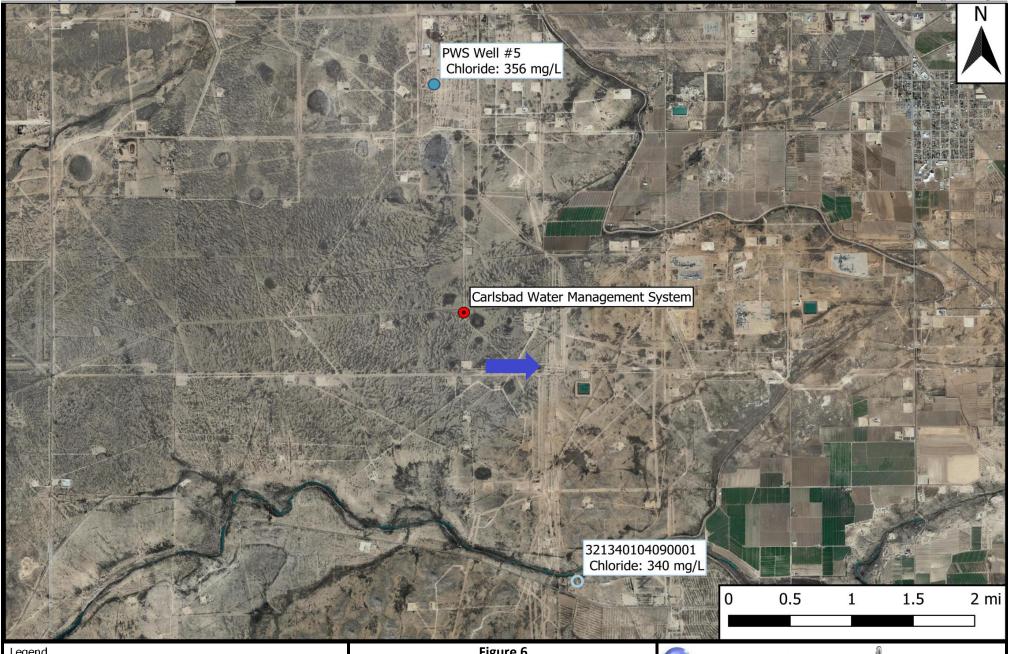
1.49 0.24 nadww01

USA.gov

## **Appendix E Elevation Profile**



## Appendix F Groundwater Quality Data





- Site Location
- Public Water Supply Well
- **USGS Well**
- Inferred Groundwater Gradient

#### Figure 6

**Groundwater Concentration and Gradient Map** Mewbourne Oil Company Carlsbad Water Management System GPS: 32.261438, -104.163478 **Eddy County** 





**Environmental & Safety Solutions, Inc.** 

Drafted: bja

Checked: jwl

Date:

11/25/20

```
#
# File created on 2020-11-25 11:36:36 EST
# U.S. Geological Survey
# This file contains selected water-quality data for stations in the National Water
# Information System water-quality database. Explanation of codes found in this file are
# followed by the retrieved data.
# The data you have secured from the USGS NWISWeb database may include data that have
# not received Director's approval and as such are provisional and subject to revision.
# The data are released on the condition that neither the USGS nor the United States
# Government may be held liable for any damages resulting from its authorized or
# unauthorized use.
# To view additional data-quality attributes, output the results using these options:
# one result per row, expanded attributes. Additional precautions are at:
# https://help.waterdata.usgs.gov/tutorials/water-quality-data/help-using-the-water-quality-data-retrieval-system#Data retrievals precautions
                              - Agency Code
  agency cd
  site no
                             - USGS site number
  sample dt
                             - Begin date
  sample tm
                             - Begin time
  sample end dt
                             - End date
  sample end tm
                             - End time
  sample start time datum cd - Time datum
  tm datum rlbty cd
                             - Time datum reliability code
  coll ent cd
                              - Agency Collecting Sample Code
                             - Sample Medium Code
  medium cd
                             - Taxonomic unit code
  tu id
  body part id
                             - Body part code
  parm cd
                             - Parameter code
  remark cd
                             - Remark code
  result va
                             - Parameter value
  val qual tx
                             - Result value qualifier code
  meth cd
                             - Method code
                             - Data-quality indicator code
  dqi cd
  rpt lev va
                             - Reporting level
  rpt lev cd
                             - Reporting level type
  lab std va
                             - Lab standard deviation
  anl_ent_cd
                              - Analyzing entity code
# The following parameters are included:
  00191 - Hydrogen ion, water, unfiltered, calculated, milligrams per liter
         - Carbon dioxide, water, unfiltered, milligrams per liter
         - Acid neutralizing capacity, water, unfiltered, fixed endpoint (pH 4.5) titration, field, milligrams per liter as calcium carbonate
         - Bicarbonate, water, unfiltered, fixed endpoint (pH 4.5) titration, field, milligrams per liter
         - Carbonate, water, unfiltered, fixed endpoint (pH 8.3) titration, field, milligrams per liter
         - Chloride, water, filtered, milligrams per liter
  00945 - Sulfate, water, filtered, milligrams per liter
  00950 - Fluoride, water, filtered, milligrams per liter
  00955 - Silica, water, filtered, milligrams per liter as SiO2
# Description of sample start time datum cd:
```

```
# MDT - Mountain Daylight Time
# Description of tm_datum_rlbty_cd:
# T - Transferred
# Description of coll_ent_cd and anl_ent_cd:
# Description of medium_cd:
# WG - Groundwater
# Description of tu id:
# https://www.itis.gov/
# Description of body_part_id:
# Description of remark_cd:
# Description of val_qual_tx:
# Description of meth_cd:
# ALGOR - Computation by NWIS algorithm
# Description of dqi cd:
# A - Historical data
# Description of rpt_lev_cd:
# Data for the following sites are included:
  USGS 321340104090001 24S.27E.12.300
                site no sample dt
                                        sample tm
                                                        sample end dt sample end tm sample start time datum cd
                                                                                                                          tm datum rlbty cd
agency cd
coll ent cd
                medium cd
                                tu_id body_part_id
                                                        parm cd remark cd
                                                                                 result va
                                                                                                 val qual tx
                                                                                                                 meth cd dqi cd rpt lev va
rpt lev cd
                lab std va
                                anl ent cd
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                                                                                         WG
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USGS
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                                                                                                                  00440
                                                                                                                                  143
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USGS
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        321340104090001 1974-05-30
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USGS
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                                                                                                                                  17.0
        321340104090001 1974-05-30
                                        14:40
Α
```



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

November 23, 2020

LANCE CRENSHAW

Etech Environmental & Safety Solutions

P.O. Box 301

Lovington, NM 88260

RE: CARLSBAD WATER MANAGMENT SYSTEM RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 11/20/20 16:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2 Haloacetic Acids (HAA-5)
Method EPA 524.2 Total Trihalomethanes (TTHM)
Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Wite Sough

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

#### Analytical Results For:

Etech Environmental & Safety Solutions LANCE CRENSHAW P.O. Box 301

Lovington NM, 88260 Fax To: (575) 396-1429

Received: 11/20/2020 Sampling Date: 11/19/2020 Reported: 11/23/2020 Sampling Type: Water

Project Name: CARLSBAD WATER MANAGMENT SYSTEN Sampling Condition: ** (See Notes)
Project Number: 13296 Sample Received By: Tamara Oldaker

Project Location: MEWBOURNE - EDDY CO NM

#### Sample ID: OTIS WELL #5 (H003089-01)

Chloride, SM4500Cl-B	mg	/L	Analyze						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	356	4.00	11/23/2020	ND	100	100	100	0.00	
TDS 160.1	mg	/L	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	2050	5.00	11/23/2020	ND	494	98.8	500	0.971	

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Mile Sough

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

#### **Notes and Definitions**

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

** Samples not received at proper temperature of 6°C or below.

*** Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Mule Sough

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

# (E)

#### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Released to Imaging: 8/23/2021 11:37:48 AM

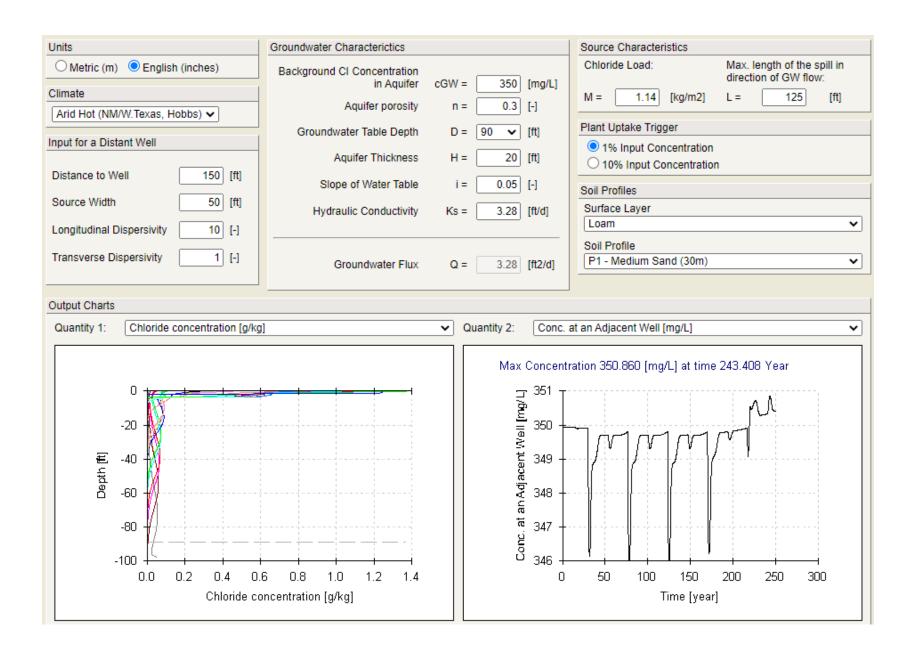
#### ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Project Manager: Lance Crushaw								V.	BILL TO						ANALYSIS REQUEST							
								P.	0. 1	k:												
Address: P.D. Box 30/ City: Lovis, Lin State: NM Zip: 78260									omp	any	1: 1	Etech E	י מין					S				
									ttn:									0				
Project #: 575-396-2378 Fax #: 575-396-1429  Project #: 13296 Project Owner: Memberral  Project Name Lansbad Water Manushust Justim Release  Project Location: Fural Eddy County, NM  Sampler Name: Might Ramine								A	Address:									- L				
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								Si	State: Zip:						15	BTEX	Texas TPH	on	(0)			
								P	Phone #:					Chlorides	8	E	S	ati	TDS			
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FOR LAB LISE ONLY			П	F		MATI	RIX	_	PR	PRESERV.		SAMPLING		O	0		e	te				
Lab I.D.	Sample I.D.	OMO(3) OO BYO(5)	5 3	GROUNDWATER	WASTEWATER	SOIL	OIL	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME					Complete Cations/Anions				
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affiliates or successors ans	Cardinal be liable for incidental or consequental damaging out of or related to the performance of services has	eunder by Cardin	al, re	gardies	s of wh	ether su							ons or otherwi	00.								
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[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

## Appendix G Chloride Migration Models



Depth to Water	Meters		Feet	95	=	2895.60 cm
	2					
User provided moist bulk density (rho_m)	0 kg/m ³		3			
		1550	kg/m° - Mois	st bulk densit	y used	in calculations
Dry Bulk Density (rho) =	1415 kg/m ³					
Default Vol. Moist. Content (Theta_v) =	0.135					
Calculated moist bulk density (rho_m) =	1550 kg/m ³					

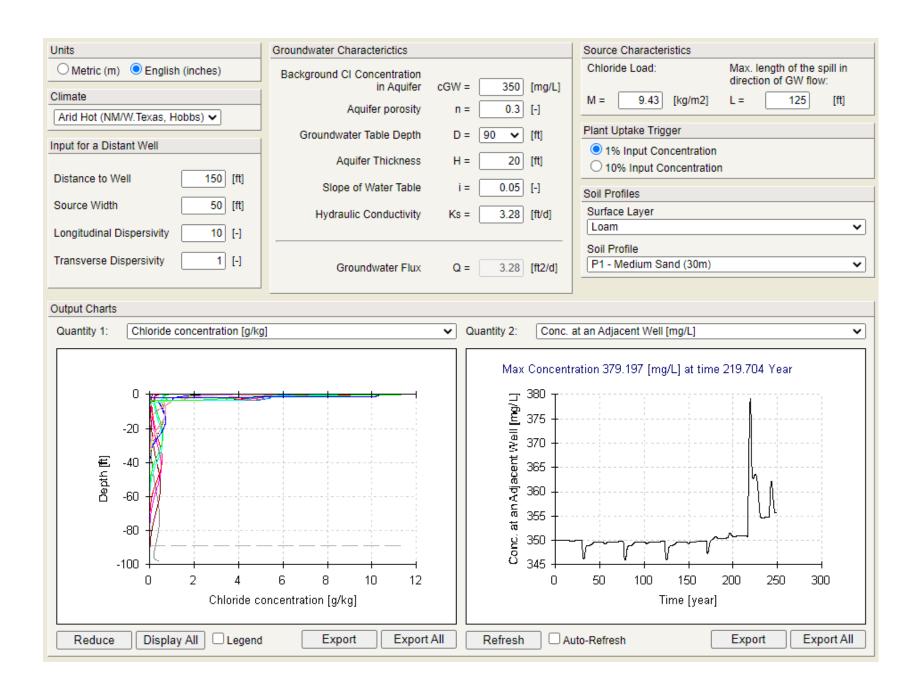
Sample   Feet   Sample   Foot   Sample   Sampl												Trench TT1
Sample   Number (increasing depth)   Sample   Sample   Sample   Ave. Depth   Ave. Depth   Sample   Ave. Depth   Sample   Ave. Depth   Ave. Depth   Sample   Ave. Depth			amples	Grab Sam			val	epth Inter	Sample from a D	If a Composite S		
Number (increasing depth)         Top of Sample         Bottom of Sample         Ave. Depth         Top of Sample         Bottom of Sample         Depth for Sample         Assigned depth in cm sample         Assigned depth in cm sample         Assigned depth in cm sample         304.8         304.8         31         2.4           1         2         3         4         5         6         7         8         9         10         11         11         11         11         12         13         14         15         16         17         18         18         18         19         19         20         21         22         23         18         18         19         20         21         22         23         18         18         19         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10	Z				Z		Meters			Feet		Sample
Sample   Sample   Ave. Depth   Sample   Ave. Depth   Feet   sample   Meters   sample   depth in cm   304.8   516   2.4   11   11   11   0   0   0   304.8   335.28   440   0.2   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0.6   0												Number
Sample   Sample   Ave. Depth   Sample   Ave. Depth   Feet   sample   Meters   sample   depth in cm   depth in cm   sample   depth in cm   depth in cm   sample   depth in cm   sample	h for Assigned	Depth for		Depth for			Bottom of	Top of		Bottom of	Top of	(increasing
1	ple depth in cm	sample	Meters	sample M	Feet	Ave. Depth	Sample	Sample	Ave. Depth	Sample	Sample	depth)
3 4 5 5 6 7 7 8 8 9 10 11 11 12 13 13 14 15 16 16 17 18 19 20 21 19 20 21 22 23 3		0										
4 5 6 6 7 8 8 9 100 111 12 133 14 15 16 16 17 18 19 20 21 22 233	335.28	0	0	11	11							
5 6 7 7 8 9 9 100 111 122 133 144 155 166 177 18 19 20 20 21 22 23												
6 7 8 8 9 10 11 11 12 13 13 14 15 16 16 17 18 19 20 21 22 23												
7 8 9 9 10 111 12 13 14 15 16 16 17 18 19 20 21 22 23												
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23												
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23												
10 11 12 13 14 15 16 17 18 19 20 21 22 23												
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24												22
47												24
25												
26												26
27												27
28												28
29												29
30												
Chloride load (kg/m²) 3.2	Chlo			l e e e e e e e e e e e e e e e e e e e		1						

Trench TT2													
	lf	a Composite S	Sample from a	Depth Int	erval			Grab S	amples				
Sample		Feet			Meters		Z		Z		Z	Chl. Conc.	Chl. Load Depth Int.
Number													
(increasing	Top of	Bottom of		Top of	Bottom of			Depth for		Depth for	Assigned		
depth)	Sample	Sample	Ave. Depth	Sample	Sample	Ave. Depth	feet	sample	meters	sample	depth in cm	mg/kg	kg/m²
1					-		6	6	0	0	182.88	160	0.45
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
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18 19													
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23													
24													
25													
26											ĺ		
27											ĺ		
28											ĺ		
29											ĺ		
30													
30											Chlor	ride load (kg/m²)	0.45

Trench TT3													
		f a Composite	Sample from	a Depth II	nterval			Grab Sa	amples				
Sample		Feet			Meters		Z		Z		Z	Chl. Conc.	Chl. Load Depth Int.
Number													
(increasing	Top of	Bottom of		Top of	Bottom of			Depth for		Depth for	Assigned		
depth)	Sample	Sample	Ave. Depth	Sample	Sample	Ave. Depth	feet	sample	meters	sample	depth in cm	mg/kg	kg/m ²
1							6	6	0	0	182.88	59	0.17
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18 19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
											Chlor	ide load (kg/m²)	0.17

Trench TT4													
	lf a	a Composite	Sample fron	n a Depth	Interval			Grab Sa	mples				
Sample		Feet			Meters		Z		Z		Z	Chl. Conc.	Chl. Load Depth Int.
Number													
(increasing	Top of	Bottom of		Top of	Bottom of			Depth for		Depth for	Assigned		
depth)	Sample	Sample	Ave. Depth	Sample	Sample	Ave. Depth		sample	meters	sample	depth in cm	mg/kg	kg/m ²
1							7	7	0	0	213.36	200	0.66
2 3													
3													
4													
5 6 7													
6													
7													
8 9													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21 22													
22													
23													
24													
23 24 25 26													
26 27													
28													
29													
30													
30											Chlorid	e load (kg/m²)	0.66
											Omoriu	c icaa (ng/iii )	0.00

	Proportional Area Weights	Chl. Load of each Borehole	Equal Area Weights	Boring Chl. Load times Proport. Of Area					
Trench TT1	0.00	3.27	1.00	0.00					
Trench TT2	0.00	0.45	1.00	0.00					
Trench TT3									
Trench TT4	0.00	0.66	1.00	0.00					
	0		4						
Averaged Chlorid	e Load of All Bor	eholes	1.14	kg/m²					



Depth to Water	Meters		Feet	95	=	2895.60 cm
Harris and the description of the description of the second	0 1/3					
User provided moist bulk density (rho_m)	0 kg/m ³	1550	ka/m³ - Mois	t hulk densit	v used	in calculations
Dry Bulk Density (rho) =	1415 kg/m ³	1000	Ng/III IIIOIC	r built donoil	, acca	iii caicaiationo
Default Vol. Moist. Content (Theta_v) =	0.135					
Calculated moist bulk density (rho_m) =	1550 kg/m ³					

Trench TT1													
		If a Composite S	Sample from a D	epth Inter	val			Grab S	amples				
Sample		Feet			Meters		Z		Z		Z	Chl. Conc.	Chl. Load Depth Int.
Number													
(increasing	Top of	Bottom of		Top of	Bottom of			Depth for		Depth for	Assigned		
depth)	Sample	Sample	Ave. Depth	Sample	Sample	Ave. Depth	Feet	sample	Meters	sample	depth in cm	mg/kg	kg/m²
1							4	4	0	0	121.92	5644	10.67
2							5	5	0	0	152.4	4848	2.48
3							8	8	0	0	243.84	2440	5.16
4							9	9	0	0	274.32	1016	0.82
5							10	10	0	0	304.8	516	0.36
6							11	11	0	0	335.28	440	0.23
7													0.60
8													
9													
10													
11													
12													
13													
14													
15 16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
	-		•	-			-				Chlor	ide load (kg/m²)	20.31

Trench TT2													
	ŀ	f a Composite S	Sample from a	Depth Int	erval			Grab S	amples				
Sample		Feet			Meters		Z		Z		Z	Chl. Conc.	Chl. Load Depth Int.
Number													
(increasing	Top of	Bottom of		Top of	Bottom of			Depth for		Depth for	Assigned		
depth)	Sample	Sample	Ave. Depth	Sample	Sample	Ave. Depth	feet	sample	meters	sample	depth in cm	mg/kg	kg/m²
1							5	5	0	0	152.4	1632	3.86
2							6	6	0	0	182.88	160	0.42
3													
4													
5													
6													
7											ĺ		
8													
9													
10													
11													
12													
13													
14													
15													
16 17													
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23											ĺ		
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25													
26											ĺ		
27											ĺ		
28											ĺ		
29											ĺ		
30													
											Chlor	ide load (kg/m²)	4.28
											• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	20

Trench TT3													
	ŀ	f a Composite	Sample from	a Depth Ir	nterval			Grab Sa	amples				
Sample		Feet			Meters		Z		Z		Z	Chl. Conc.	Chl. Load Depth Int.
Number													
(increasing	Top of	Bottom of		Top of	Bottom of			Depth for		Depth for	Assigned		
depth)	Sample	Sample	Ave. Depth	Sample	Sample	Ave. Depth	feet	sample	meters	sample	depth in cm	mg/kg	kg/m ²
· ´1		•		'	•	,	5	5	0	0	152.4	2440	5.76
2							6	6	0	0	182.88	59	0.59
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30												2	
											Chlor	ide load (kg/m²)	6.35

Trench TT4													
	If a	Composite	Sample fron	n a Depth				Grab Sa	ımples				
Sample		Feet			Meters		Z		Z		Z	Chl. Conc.	Chl. Load Depth Int.
Number													
	Top of	Bottom of		Top of	Bottom of			Depth for		Depth for	Assigned		
	Sample	Sample	Ave. Depth	Sample	Sample	Ave. Depth	feet	sample	meters		depth in cm	mg/kg	kg/m²
1	·				•	•	4	4	0	0	121.92	2440	4.61
2							5	5	0	0	152.4	2440	1.15
2 3							6	6	0	0	182.88	748	0.75
4							7	7	0	0	213.36	200	0.22
5													0.02
5 6 7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
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26													
27													
28													
29													
30													
											Chlorid	e load (kg/m²)	6.76

	Proportional Area Weights	Chl. Load of each Borehole	Equal Area Weights	Boring Chl. Load times Proport. Of Area						
Trench TT1	0.00	20.31	1.00	0.00						
Trench TT2	0.00	4.28	1.00	0.00						
Trench TT3										
Trench TT4	0.00	6.76	1.00	0.00						
	4									
Averaged Chlorid	e Load of All Bor	reholes	9.43	kg/m²						

## Appendix H Regulatory Correspondence

**To:** Joel Lowry

**Subject:** RE: nRM2030230289 - Mewbourne's Carlsbad Water Management System - Site Assessment Report

and Proposed Remediation Workplan

From: Eads, Cristina, EMNRD < Cristina. Eads@state.nm.us>

Sent: Wednesday, March 17, 2021 10:45 AM

To: Joel Lowry <joel@etechenv.com>

Subject: RE: nRM2030230289 - Mewbourne's Carlsbad Water Management System - Site Assessment Report and

Proposed Remediation Workplan

Joel,

The OCD approves of the BLM's proposed variance of using compacted caliche to inhibit the vertical migration of chloride contaminants left in-situ.

Thank you,

Cristina Eads • Environmental Specialist - A

Environmental Bureau
EMNRD - Oil Conservation Division
5200 Oakland Ave, Suite100 | Albuquerque, NM 87113
505.670.5601 | Cristina.Eads@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Joel Lowry < joel@etechenv.com > Sent: Wednesday, March 17, 2021 9:56 AM

To: Eads, Cristina, EMNRD < Cristina. Eads@state.nm.us>

Subject: [EXT] FW: nRM2030230289 - Mewbourne's Carlsbad Water Management System - Site Assessment Report and

Proposed Remediation Workplan

From: Joel Lowry

Sent: Monday, February 8, 2021 4:47 PM

To: Eads, Cristina, EMNRD < Cristina. Eads@state.nm.us >; Amos, James < jamos@blm.gov >

Subject: FW: nRM2030230289 - Mewbourne's Carlsbad Water Management System - Site Assessment Report and

Proposed Remediation Workplan

Mr. Amos and Ms. Eads,

Please find attached the *Site Assessment Report and Proposed Remediation Workplan* that had been prepared for Mewbourne's Carlsbad Water Management System environmental remediation Site. Also attached is an information packet depicting the present excavation and the location of excavation confirmation soil samples and associated laboratory analytical data.

On November 9, 2020, upon receiving archaeological clearance, Etech conducted an initial release assessment at the Site. During the initial release assessment, a series of test trenches (TT-1 through TT-5) were advanced within the release margins in an effort to determine the vertical extent of chloride impacts. During the advancement of the test trenches, soil samples were collected on approximate 1 Ft increments and field screened for concentrations of chloride. The test trenches were advanced until chloride field test results suggested concentrations of chloride were below 600 mg/kg. Select soil samples were submitted to the laboratory for analysis of chloride. Laboratory analytical results indicated soil was not impacted above 440 mg/kg beyond 11 ft. bgs in the area characterized by test trench TT1, 160 mg/kg beyond 6 ft. bgs in the area characterized by test trench TT2, the laboratory method detection limit beyond 6 ft. bgs in the area characterized by test trench TT3 and 230 mg/kg beyond 3 ft. bgs in the area characterized by test trench TT5.

Upon conducting the initial release assessment, excavation activities commenced at the Release Site. Impacted soil affected above the NMOCD/BLM Reclamation Standard present within the uppermost 4 Ft. was excavated and transported to an NMOCD-permitted surface waste facility. Excavation sidewalls were advanced until laboratory analytical results indicated chloride concentrations were below the NMOCD Reclamation Standard.

On December 14, 2020, a *Site Assessment Report and Proposed Remediation Workplan*, was submitted to the NMOCD and BLM proposing remediation activities designed to advance the Site toward an approved closure. At the time of preparation, Etech's copies of the available BLM shapefiles suggested the Site was located in an area described as having medium karst potential, considered by some to be unstable. The *Site Assessment Report and Proposed Remediation Workplan*, utilized in-situ chloride contaminant migration models and the *presence of fresh water wells in the vicinity supporting background chloride concentrations of 356 and 340 mg/L* to justify excavation of impacted soil affected above the 10,000 mg/kg present within the release margin.

Due to the size and sensitive nature of the release, upon submitted the *Site Assessment Report and Proposed Remediation Workplan* via the online payment portal, copies were submitted to the BLM and NMOCD for timely consideration. In subsequent conversations between representatives of Etech, the BLM and the NMOCD the *Site Assessment Report and Proposed Remediation* was approved with the condition that a 2-3 Ft. layer of compacted caliche be installed in the base of the excavated area in an effort to mitigate the vertical migration of chloride contaminants left in-situ.

Between November 10, 2020 and January 21, 2021, approximately 21,000 cubic yards of impacted soil has been excavated and transported to an NMOCD-permitted surface waste facility. During the course of remediation activities, 224 excavation confirmation soil samples were collected from the floor of the approximately 90,000 sq. ft. excavation. Laboratory analytical results from excavation confirmation soil samples collected from the floor and sidewalls of the excavated area indicated BTEX and TPH concentrations were below the laboratory method detection limit in each of the analyzed soil sample. Analytical results from excavation confirmation soil samples collected from the sidewalls of the excavated area indicated chloride concentrations were below the NMOCD Reclamation Standard in each of the submitted soil sample. Analytical results from excavation confirmation soil samples collected from the floor of the excavated area indicate the maximum chloride concentration remaining in-situ is 9,000 mg/kg (FL-79 @ 4') and the average chloride concentration is 2,260 mg/kg. Upon receiving verbal approval from both agencies, backfill activities commenced at the Site.

On February 4, 2020, Etech received notification that NMOCD had conducted their formal review of the *Site Assessment Report and Proposed Remediation Workplan* via the online portal and that the workplan was approved with the condition that 600 mg/kg be utilized as the chloride closure criteria on the basis of the Site being located in an unstable area, or with high karst potential. This prompted Etech to check the GIS shapefiles that they had been utilizing. Further review suggests karst designation in the vicinity of the release changed sometime between when the release occurred and the *Site Assessment Report and Proposed Remediation Workplan*, presumably on January 14, 2021, when the shapefile in the zip file on the CFO website was created; all inquiries with industry peers resulted in their current use of the same Karst Shapefile as myself.

Upon receiving NMOCD and BLM approval, Etech proposes to move forward with the original *Site Assessment Report* and *Proposed Remediation Workplan* and subsequent BLM conditions of approval. The BLM's condition of approval of using compacted caliche would be the proposed variance, or engineering control, designed to inhibit the vertical migration of chloride contaminants left in-situ. The final report will take the shape of a *Remediation Summary and Variance Request* referencing information within the *Site Assessment Report and Proposed Remediation Workplan* and detailing field activities and laboratory analytical results from excavation confirmation soil samples.

Mr. Amos,

If you are still in agreement with the approach might you respond to this email as such?

Ms. Eads,

With Jim's approval might we resume remediation activities and prepare a Remediation Summary and Variance Request for consideration at completion?

I apologize for the oversight and inconveniences. Had we known that the area may be considered as having a high potential for karst we would have undoubtedly taken a different route and not started backfilling the excavation on verbal agreements. If you have any questions or need any additional information, please feel free to contact me by phone or email. Thanks.

Joel W. Lowry

Etech Environmental & Safety Solutions, Inc.

3100 Plains Highway Lovington, NM 88260 Office: (575) 396-2378

Fax: (575) 396-1429 Cell: (432) 466-4450

From: Joel Lowry

Sent: Thursday, December 31, 2020 9:19 AM

To: Bratcher, Mike, EMNRD < mike.bratcher@state.nm.us>

Subject: Holiday? + Quick Call - FW: nRM2030230289 - Mewbourne's Carlsbad Water Management System - Site

Assessment Report and Proposed Remediation Workplan

Mike,

I wanted to shoot out an email to see if you were on Vacation this week and if not if you had a quick second to discuss this project. I spoke to Mr. Amos the other day and he was on board. He had requested that during backfilling activities that we do 3 Ft. of compacted fill in lieu of any poly liners. With this, he has just moved away from holding the Medium Karst as Unstable, allowing us to move forward with a 10,000 ppm closure, something the NMOCD may had been on board with all along. It was/is kind of a weird project. Seems the primary approval we needed was from the BLM and we could have safetly moved forward "at risk" as it concerns the NMOCD. If you are on vacation, please don't bother. We got an arch survey and a prompt initial response, excavating everything affected above the NMOCD Reclamation Standard present within the uppermost 4 Ft. I bet they are getting close to having moved 15,000 cy by now. We do have an opportunity to advance the floor of the excavation in a couple hot spots to less than 10,000 and begin backfilling the southern portion of the Site to limit our overall footprint and make efficient use of the trucks and mechanical

equipment. Again, f you are on vacation please pay it no mind. Otherwise I hope that you have enjoyed your Holidays and I look forward to working with you again next year!

Respectfully,

Joel Lowry

From: Joel Lowry

Sent: Friday, December 18, 2020 3:45 PM

To: Bratcher, Mike, EMNRD < mike.bratcher@state.nm.us >; 'jamos@blm.gov' < jamos@blm.gov >

Subject: FW: nRM2030230289 - Mewbourne's Carlsbad Water Management System - Site Assessment Report and

Proposed Remediation Workplan

Mr. Bratcher and Mr. Amos,

Please find attached a *Site Assessment Report and Proposed Remediation Workplan* that has been prepared for Mewbourne's Carlsbad Water Management System reportable release site. On October 19, 2020, a release was discovered on the Carlsbad Water Management System 12-inch poly line. The release was attributed to the failure of a pup joint on the pipeline riser. The initial C-141 indicates that approximately 150 bbls of produced water were released with approximately 20 bbls having been recovered. The release was inferred to have affected an area of ROW and adjacent pasture measuring approximately 85,000 sq. ft. The release site is located in Unit Letters F &K, Section 35, Township 23 South, Range 27 East in Eddy County, New Mexico.

Upon discovering the release and gaining the necessary archeological clearance, remediation activities commenced. Impacted soil affected above the NMOCD Reclamation Standard present within the uppermost 4 Ft. was excavated and transported to an NMOCD-approved disposal facility.

On December 14, 2020, the attached *Site Assessment Report and Proposed Remediation Workplan* was submitted through the NMOCD Online Payment Portal; the release was assigned incident number nRM2030230289.

The release site is in an area identified as Medium Karst (pg 15). The nearest well with depth to groundwater information is an NMOSE well C-03031 located approximately 2,100 Ft southeast of the Site. The driller and completions log indicates water bearing strata was encountered at 139 to 150 Ft bgs. The well was screened from 90 to 150 Ft bgs and had a static water level of 67 Ft. bgs as measured in 2004, which could suggest Artesian (pgs 15, 87, 88). The next closest water well with available information is USGS well located approximate 0.8 Mi north of the Site. The well was completed within alluvium/bolson deposits and exhibited a static water level of 110.98 Ft as measure in 1988 (pg 89). The Site Assessment Report and Proposed Remediation Workplan indicates that the probable depth to groundwater at the Site is approximately 95 Ft. bgs; 90 Ft. bgs was utilized in the chloride migration models within the attached Workplan.

Due to the Site's location and the potential need for chloride migration modeling to develop a proposed remediation strategy a review of available groundwater chemistry data was conducted. The nearest USGS well (32134010409000) with available groundwater chemistry data is located 2.3 Mi south-southeast of the Site. The well is said to have been completed in the Capitan Limestone and exhibited a chloride concentration of 340 mg/L (pgs 95-97). An additional groundwater sample was collected from a public water supply well approximate 1.8 Mi north of the Site. Laboratory analytical results indicates the groundwater sample exhibited a chloride concentration of 356 mg/L and a TDS concentration of 2,050 mg/L (pgs 95, 98-101) . The driller and completions log indicates water bearing strata was encountered at 210 to 220 Ft bgs. The well was screened from 160 to 220 Ft bgs and had a static water level of 98 Ft. bgs as measured in 2006, which could suggest Artesian. For the purposes of chloride migration models 350 mg/L was utilized as the background chloride concentration within the aquifer (pg 103).

This is one of the more interesting projects that I have worked on lately. Depth to groundwater is established as being over 50 Ft. bgs. No shallow water bearing zones were identified in the drilling logs for PWS Well #5 or C-03031, which suggests that the first zone of usable freshwater is located at depths ranging from 90 to 220 Ft bgs, which exhibited an average chloride concentration of 348 mg/L.

The Site is located in medium karst which can be considered an unstable area [sic]. Laboratory analytical data from soil samples collected from the five (5) vertical test trenches indicates chloride concentrations decline to 440 mg/kg at 11 Ft. bgs in the area characterized by TT1, 160 mg/kg at 6 Ft. bgs in the area characterized by TT2, Non-Detect at 6 Ft. bgs in the area characterized by TT3, Non-Detect at 7 Ft. bgs in the area characterized by TT4 and Non-Detect at 3 Ft. bgs in the area characterized by TT5.

Review of available data suggests that the need for a Variance Request may not be necessary, rather we would need BLM's approval of the attached Workplan, or their permission to utilize Tier II clean-up standards, as opposed to the 600 mg/kg for unstable areas at depths greater than 4 Ft. bgs. Gaining approval from the BLM of the attached Workplan, or them allowing us to proceed as though the Site is not located in an unstable area might limit the chances of the Workplan being denied, the need for a Variance Request and/or the potential need for poly liner(s).

We had a very prompt initial response and approximately 11,000 cy of impacted soil affected above the NMOCD Reclamation Standard has already been excavated and transported to the disposal facility. Due to the size of the release, and in an effort to maintain efficiency and limit the amount of surface disturbance, it would be advantageous for us begin backfilling the southern portion of the release Site. Please review the attached *Workplan* at your convenience. If you have any questions or need any additional information, please feel free to contact me by phone or email. Thanks.

Respectfully,		
Joel Lowry		

**To:** Joel Lowry

Subject: RE: [EXTERNAL] FW: nRM2030230289 - Mewbourne's Carlsbad Water Management System - Site

Assessment Report and Proposed Remediation Workplan

From: Amos, James A < jamos@blm.gov > Sent: Thursday, February 11, 2021 4:36 PM To: Joel Lowry < joel@etechenv.com >

Subject: Re: [EXTERNAL] FW: nRM2030230289 - Mewbourne's Carlsbad Water Management System - Site Assessment

Report and Proposed Remediation Workplan

Joel,

For the most part the TT's 1 thru 5 identified where the chlorides clean up, ranging from 3-11' depth with most cleaning up in the 5-7' depth. The current excavations are in the 4' range which will be adequate for the surface restoration, and will keep us from having to excavate an additional 1-3' with the potential for having to lay back sidewalls, etc, causing additional surface disturbance and restoration. The BLM's issues have been achieved, with the removal of the top 4' in order to restore the surface to a condition matching previous conditions and delineation to a point of identifying where the chlorides drop off significantly. With the proposed 3' of compacted caliche overlying the remaining impact. I feel this will create a barrier to deter water penetration and slow the downward migration of chlorides.

With all said, the BLM is okay with the proposed procedure as is. If any questions, please get back to me. thanks

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	1 118 0 0 0 0 J 0
Incident ID	nRM2030230289
District RP	
Facility ID	
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.				
A scaled site and sampling diagram as described in 19.15.29.1	1 NMAC			
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office			
✓ Laboratory analyses of final sampling (Note: appropriate ODC	C District office must be notified 2 days prior to final sampling)			
Description of remediation activities				
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	ntions. The responsible party acknowledges they must substantially nditions that existed prior to the release or their final land use in			
OCD Only				
Received by: Robert Hamlet	Date: 8/23/2021			
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.			
Closure Approved by: Robert Hamlet	Date: 8/23/2021			
Printed Name: Robert Hamlet	Title: Environmental Specialist - Advanced			

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

CONDITIONS

Action 26090

## **CONDITIONS**

Operator:	OGRID:			
MEWBOURNE OIL CO	14744			
P.O. Box 5270	Action Number:			
Hobbs, NM 88241	26090			
	Action Type:			
	[C-141] Release Corrective Action (C-141)			

## CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NRM2030230289 CARLSBAD WATER MANAGEMENT SYSTEM, thank you. This closure is approved.	8/23/2021